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The 2 Percent Lid: Part II

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This is the second part of a series on Ed Jaksha's petition-initiated amendment to the state constitution that would place a 2 percent lid on government spending in Nebraska. The first part, in the September issue of *Business in Nebraska*, examined what other states have done to limit taxes and expenditures.

The first article pointed out that there are two basic types of restrictions: the variable formula method and the fixed number method. The variable formula method permits state and local governments to meet the increased demand for public services that generally accompanies growth in economic activity and/or population.

In contrast, the fixed number method imposes an inflexible lid on government expenditures. The lid is independent of changes in demand for government services. The 2 percent lid proposed for Nebraska is a fixed number lid.

If the 2 percent referendum is passed by voters in November, Nebraska's state and local governments will be required to function under an extremely restrictive budget and expenditure limitation formula. The economic implications of the proposed 2 percent limitation formula are summarized at the end of this article.

This article applies the 2 percent lid to budgets representative of Nebraska's municipalities and school districts. The purpose of this mathematical exercise is to provide Nebraska voters with sufficient information to gauge the wisdom of the 2 percent formula as a constitutional law to restrict government budgets.

To review, the proposed constitutional amendment, Measure 405, would limit government spending to a 2 percent annual increase unless special approval is granted. The proposed 2 percent lid has a provision to increase expenditures at the state level if four-fifths of the members of the legislature (or 40 senators) approve or, at the local level, if a special election is held.

If a local governmental unit asks voters for a budget increase that exceeds the 2 percent formula and a simple majority of the voters vote no (actually, the referendum's language would require a "yes" vote), the government's budget would be frozen at the current year's level of total expenditures. Current year expenditures can be even less than the current year budget.

The 2 percent lid proposal makes no allowances or adjustments for inflation, emergencies, or economic growth.

Local Government: Municipalities

The hypothetical municipal budget in Table 1 typifies municipal governments in Nebraska. Budget categories and budget proportions by category used in Table 1 are representative of municipal

State Economic Scoreboard

Change from same month one year ago
See Review and Outlook on page 7 for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (June) Constant $	↓ -5.3%	↓ -6.1%	↓ -4.5%
Nonmotor Vehicle Sales (June) Constant $	↑ 2.3%	↓ -1.4%	↑ 6.1%
Building Activity (June) Constant $	↑ 7.6%	↑ 2.7%	↑ 14.3%
Employment (August)	↑ 3.0%	↑ 1.9%	↑ 4.1%
Unemployment Rate* (August)	↓ 2.3%	↓ 2.4%	↓ 2.3%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

Table 1
City of Goodville 1991-92 Budget

Category	Actual Budget 1990-91 (1)	Preliminary Budget 1991-92 (2)	2% Threshold Limit (3)	Final (+) or (-) Over or Under (4)	Budget 1991-92 (5)
General Government	$217,458	$231,923	$221,807	$10,116 (+)	$214,786
Building & Insurance	835,892	837,700	852,610	14,910 (-)	837,700
Public Works	168,081	179,096	171,443	7,653 (+)	179,096
Public Safety	1,248,740	1,325,857	1,273,715	52,142 (+)	1,250,269
Street Maintenance	425,854	454,539	434,371	20,168 (+)	440,139
Parks & Recreation	564,566	607,453	575,857	31,596 (+)	534,428
Library	199,995	213,955	203,995	9,960 (+)	203,995
Capital Improvements	969,600	1,141,350	988,992	152,358 (+)	1,066,052
Contingency & Other	45,838	43,080	46,755	3,675 (-)	43,080
Total Expenditures	$4,676,024	$5,034,953	$4,769,545	$265,408 (+)	$4,769,545

government budgets. Additional municipal government budgets could be exhibited, but basically the only difference would be scale, where scale or size of budget varies directly with the size of the community.

The actions of municipal government officials used in this article are pure conjecture. We believe, however, that these conjectures represent probable decisions that a municipal government would make if the 2 percent lid amendment passes.

Our representative city will be called Goodville. Goodville's population is 14,386, and the city employs 171 workers. The city has an assessed valuation of $267,306,600 and a tax rate of 78 cents per $100 valuation. Finally, Goodville is managed by a mayor-council government.

Column (1) of Table 1 shows Goodville's current, base year (1990-91 fiscal year) budget. Column (2) shows the city officials' recommended budget for fiscal year 1991-92. The 2 percent lid budget for Goodville is given in column (3). (Each category in column (1) was increased 2 percent.) Column (4) shows the over/under budget amounts produced by the 2 percent lid. Column (5) shows the city officials' final 1991-92 budget for Goodville that conforms to the 2 percent lid law. (Definitions of the various budget categories are presented on page 3.)

Approximately 64 percent of Goodville's base year (1990-91) budget represents personnel services, which includes wages, salaries, and fringe benefits. Personnel services presently average slightly over $17,000 per employee. Nebraska's Commission of Industrial Relations has ordered Goodville's city officials to increase its employee's salaries 5 percent to meet comparability requirements of Section 48-818 RRS of Nebraska.

This mandate alone requires Goodville to increase its 1991-92 budget $149,743. This mandate requirement is reflected in the recommended budget shown in column (2) of Table 1. Other factors reflected in this column include adjustments for anticipated increases in the cost of materials and supplies (which are expected to increase 8 percent to 12 percent because of anticipated price run-ups, especially for energy-related items) plus carryover capital construction projects that the city is obligated by contract to pay.

By contract, two construction projects are being carried to the 1991-92 fiscal year. These projects involve final work and payment on a new senior citizen center ($240,000) and final work and payment on a major street widening project to accommodate recent city growth ($288,000). The total construction cost carryover is $528,000. This amount is included in the capital improvements figure of $969,600 in column (1) of Table 1.

The carryover in construction projects of $528,000 plus the salary adjustment of $149,743 required by Nebraska's Commission of Industrial Relations means that Goodville is obligated to increase its 1991-92 budget at least $677,743. To mitigate part of the increase, $348,814 is cut mainly from the capital improvement segment in the preliminary budget and other segments of the budget.

Accounting for carryover obligations and for expected increases in cost of materials and supplies, Goodville has a preliminary budget of $5,034,953 for fiscal year 1991-92. No new programs or expansions of existing programs are included in the preliminary budget. Goodville's preliminary budget exceeds the 2 percent lid amount by $265,408 (sum of column (2) - sum of column (3)).

Goodville city officials either must reduce their preliminary 1991-92 budget $265,408 to comply with the two percent lid law or place the appropriation issue on the ballot at a special election. The cost of a special election is approximately $4,000.

Some city council members believe that the city should hold a special election because the preliminary budget for 1991-92 is realistic. The city attorney cautions the council members that if the voters reject their proposed budget of $5,034,953 for 1991-92, Goodville could face a $886,929 budget problem (the difference between the preliminary 1991-92 budget and actual 1990-91 expenditures of $4,148,024) instead of a $265,408 problem.

The attorney's interpretation is that in the event of a voter rejection, next year's budget will be limited to this year's expenditure level. The current year budget for Goodville is $4,676,024, but the current expenditure level is $4,148,024. $528,000 of this year's budget represents carryover construction projects.

With the prospect of a voter rejection plus the $4,000 cost of a special election, Goodville's city officials decide to trim their preliminary budget to comply with the 2 percent lid law.

The following is a record of various actions Goodville's city officials may take to meet the budget limit of $4,769,545 ($4,676,024 x 1.02 = $4,769,545).

General Government

Eliminating one full-time auditing position and reducing the hours of a part-time clerk cuts $17,137 from the general government category. The auditing position is eliminated because the primary responsibilities of the job are for federal grants—because of the 2 percent lid, the city will be getting out of the grant business. Hours for the part-time clerk are cut because part of the clerical duties for ambulance billing will be eliminated when the city ambulance service is privatized.

Building & Insurance

The budget for building and insurance is kept at the preliminary budget level because most of this category's appropriation is for insurance. The only savings that could be anticipated would require larger deductibles for losses. With only $43,080 allocated for contingencies, the council believes it would be too risky to cut insurance or increase deductibles.

Public Works

No cuts are made in this category. Public works had experienced severe cuts in recent years when several building inspectors and a part-time clerk were eliminated.

Public Safety

Eliminating the city's fire squad and ambulance service cuts $75,588 from the ambulance and fire department. The council decides that a private company can provide this service.

Discontinuing this service, which presently is staffed with on- and off-duty fire personnel, means that three fire fighter billets can be eliminated. (Goodville will ask that the private company make an effort to hire the fire fighters who would be dismissed. This will be an issue in the ambulance company's contract with the city.) The council's decision could affect Goodville's ISO fire insurance rating, as manpower on the department will be reduced by three.

Budget Categories Defined

General Government	Administration, accounting, and legal
Building & Insurance	Building maintenance, health-life-property-liability insurance, workers and unemployment compensation insurance, and employer's share of Social Security
Public Works	Engineering, building inspection, planning & zoning, board of adjustment, and airport
Public Safety	Police, fire, animal control, civil service, civil defense, and ambulance service
Street Maintenance	Street repair, street cleaning, parking lot maintenance, snow removal, airport runway maintenance, and storm sewer repair, maintenance, and cleaning
Parks & Recreation	Parks and cemetery maintenance, recreation programs, swimming pools, parks and street right-of-way tree maintenance, and senior citizen center operations
Library	Local and regional library activities
Capital Improvements	Street and storm sewer construction and reconstruction, sidewalks, street resurfacing, parking lot acquisition and construction, building construction, park acquisition and improvements, and other capital improvements
Contingency	Emergencies and unforeseen expenses

An adverse rating will increase fire insurance premiums on all insured buildings and structures. Also, Goodville residents will have to pay a private company $118 per emergency call instead of the $65 rate they now pay the city.

Street Maintenance

Severing contracts for snow removal with local heavy equipment contractors prunes $14,400 from the street maintenance budget . The city's current policy calls for Goodville city crews to remove snow only on major city streets and the downtown area following a snowstorm. Under current policy, residential areas are cleared by four local contractors. Usually the entire snow removal process takes approximately ten hours for completion.

With the cancellation of private contractors for the residential areas, the city's public works director estimates that it will take about 32 hours for city crews to remove snow from all areas of the city.

Parks and Recreation

The parks and recreation portion of the budget is trimmed $73,025. The council will work with YMCA officials to see if eliminated programs can be shifted to the YMCA. Council members will help the YMCA raise funds from businesses and individuals to support these programs.

Library

The acquisition budget at the library is reduced $5,000. Part-time student help is cut to save $4,960. Library hours will not be reduced, at least for 1991-92.

Capital Improvement

Resurfacing and pavement replacement are sliced by $75,298 to meet the requirements of the 2 percent lid. Several council members voice concerns that delaying work on streets may send a signal to the city's residents that the town is starting to deteriorate economically.

Contingency & Other

The council elects not to reduce this portion of the budget because most members feel that the $43,080 budget figure is already inadequate. If Goodville experiences a flood, for example, the current $43,080 appropriation most likely would not cover all costs of the disaster.

The city's independent auditors consistently have recommended a contingency fund of approximately $150,000 or at least 3 percent of the city's total budget. Their recommendation has never been implemented because it would have required an increase in property taxes.

The council's position was to pass a supplemental appropriation ordinance in the event of an emergency situation. Under the 2 percent lid law, emergency appropriations would not be permitted.

The foregoing adjustments bring Goodville's budget for fiscal year 1991-92 into compliance with the 2 percent lid law. Many council members wonder what the city will do next year. This first round of budget cuts only can be made once. Additional cuts must be made in the future. To prepare for next year, Goodville's city council votes to investigate the following areas for possible future budgets cuts.

- Reduce the hours and staff for some services such as the library, swimming pool, athletic events, etc.;
- Transfer all recreation activities to the YMCA for private support;
- Sell several city parks for development to eliminate maintenance expenses;
- Establish a police reserve program and volunteer fire program to mitigate the public service impact when manpower is cut from these departments;
- Eliminate most, if not all, temporary and part-time positions used in the summer months on ditch cleaning, park mowing, and street work;
- Develop a program for neighborhoods to adopt a park or ditch or street for volunteer maintenance. Goodville's council members recognize that this action could reduce the attractiveness of the city. Whether Goodville's residents share the council's concern will not be known until the service is eliminated;
- Privatize as many city services as practical. The city council recognizes that in many cases all they are doing is transferring expenses from the city to private individuals. Although all transfers would be readily identifiable, the impact of these transfers may not be immediately apparent. For example, reducing the number of fire personnel would decrease the size of the municipal budget, but this action also could raise insurance rates for private individuals and businesses.

As the council ends its emergency session, several members express disappointment and concern. It seems to the council members that Goodville and the city council are being penalized for practicing efficient government.

If the council had practiced excessive or even liberal spending practices in past years, they now would be working with a higher budget base to which to apply the 2 percent lid law. The higher budget base would provide the city with a cushion to minimize the economic impact of the 2 percent lid, at least for the first few years.

Local Government: School Districts

Table 2 represents a typical school district budget in Nebraska. Because there are substantial differences in size, number and condition of facilities on each school's campus, transportation needs, and number of special education students of grade schools and high schools across Nebraska, it is more meaningful to discuss school budgets in terms of the percentages of the total allotted for various expenditure categories. The budget appropriations shown in Table 2 are in percentage terms.

Our representative school district will be called Prairie View.

Table 2
Current Prairie View Budget
(in percentage terms)

Category	Percent
Instructional Services	69.59
Central Administration	3.61
Building Administration	5.54
Business Services	2.24
Operation of Plant	7.82
Maintenance of Plant	3.54
Transportation	3.55
Other Expenses	4.11
TOTAL	100.00

Approximately 80 percent of Prairie View's budget involves salaries and salary-related expenditures. A substantial part of salaries is established through the public employees bargaining law and is subject to final adjudication on a comparable pay standard by the Nebraska Commission of Industrial Relations.

Special education, a mandated program, accounts for approximately 9 percent of the school's budget. The 9 percent figure is typical of most schools' appropriations to special education programs in Nebraska.

Prairie View's mandated programs can be grouped into five basic categories.

Special Education Services

Special education services are mandated by both federal and state law. These special education programs must be provided regardless of the school's budget situation. For the last several years, the average expenditure for special education services has increased approximately 9 percent per year.

Schools likely will see the 9 percent rate continue for some time because of recent and expected future inflation and the growing need for special services. With total special education costs representing 9 percent of total expenditures and costs increasing 9 percent per year, special education mandates would require approximately 40 percent of the allowance under the 2 percent lid law.

A simple example explains the mathematics for the 40 percent figure. Suppose that Prairie View's total budget is $100. Of this budget, $9 will go to special education mandates ($100 x 0.09 = $9.00). If special education expenses increase 9 percent per year, the district will need to increase its special education budget for the next fiscal year 81 cents, for a total special education budget of $9.81.

The 2 percent lid law would limit the Prairie View's budget to $102.00 for next year ($100 x 1.02 = $102.00), for a total increase of $2.00. Of the $2.00 increase, 81 cents (or 40.5 percent) would have to be allocated to special education mandates.

The 2 percent lid law combined with special education mandates could produce severe budgetary impacts on some school districts in Nebraska. The added enrollment of one severely handicapped child, for example, could surpass by far a district's 2 percent allowance.

Accreditation Standards

Minimum education program requirements are rules and regulations prescribed by law to meet accreditation standards. These standards require 400 credit hours of course offerings in the core curriculum of a high school.

Failure to meet the minimum standards for accreditation removes a school from the legal operations list. Removal from the legal operations list exposes the school to possible closure, because student attendance likely will decline as students transfer to accredited schools. The school also is at risk of losing state funding.

The accreditation issue is a major concern to a majority of Nebraska's high school districts. Of the 275 high schools in 1988-89, 13 offered less than 400 hours; 29 offered between 400 and 425 hours; 66 offered from 426 to 450 hours; and another 99 offered between 451 and 500 credit hours.

Seventy-three percent (201) of Nebraska's 275 high schools offer less than 20 percent more than the minimum accreditation requirements—a factor that would be crucial under long-term application of the 2 percent lid. Most likely, the impact would be more severe for many of Nebraska's rural high school districts.

Safety Standards

Mandates in safety standards, hazardous product management (asbestos, radon, lead, etc.), and accessibility to the handicapped require building and facility modifications and maintenance.

Transportation

School districts are required to provide transportation or 60 cents per mile one way in lieu of transportation per family in excess of four miles from the attendance center. Transportation services are especially important to the rural high school districts of Nebraska.

Nebraska Industrial Commission

The Nebraska Industrial Commission sets final wage orders for school employees in cases of disputes in order to maintain comparable pay standards. These wage orders must be implemented by school districts.

The implementation of wage orders can increase the salary portion of a school's total budget considerably more than 2 percent. A wage order in excess of the 2 percent limit would require a reduction in personnel or other budget cuts.

Figures and calculations given in the following table provide a simple way to understand the budgetary implications of the 2 percent lid formula. The calculations are made for five years.

Assume that our hypothetical Prairie View's current base year budget is $100. Also assume that expenditures will continue to increase at the current rate of 6.1 percent per year. A 6.1 percent increase is a reasonable assumption in light of current and expected inflation rates and in light of the impact of mandated programs and services on school district budgets.

Column (1) in Table 3 shows the annual budget levels for years one through five based on an average annual 6.1 percent increase in school expenditures. Column (2) of Table 3 shows annual budget limits under the 2 percent lid law. Column (3) shows the difference between projected budgets without the 2 percent lid law and budgets under the 2 percent lid.

The task that Nebraska school districts would face under the 2 percent lid law would be to eliminate the differences shown in column (3).

Table 3 shows that the budget shortfall on a hypothetical base year budget of $100 by the fifth year would be $24.05. If the expected increase in cost of education did not exceed 2 percent per year, there would be no budget shortfall at the end of the five year period.

It is highly unlikely, especially in light of inflation, however, that the increase in educational costs will not exceed 2 percent per year. This means that under the 2 percent lid law, Nebraska's school districts will have to make hard choices about what programs to reduce or eliminate.

If the 2 percent lid amendment is passed, Nebraska's school districts probably will be forced to identify three levels of impacts related to possible program and service reductions or eliminations. For this discussion, these levels will be referred to as *minimal impact, moderate impact*, and *severe impact.*

Minimal Impact

Areas that should have minimal impact on school performance and the quality of programs involve the reduction or elimination of noneducational services.

- Defer maintenance and repair;
- Cease transportation and pay parents for transporting over four miles;
- Eliminate hot lunch programs;
- Reduce or eliminate facility use beyond school day to curtail operations expenses.

Moderate Impact

The moderate impact level would consist of reductions or eliminations of indirect educational services.

- Curtail purchases of new textbooks;
- Curtail purchases of new equipment and supplies;
- Eliminate teacher aides;
- Reduce or curtail extracurricular activities;
- Reduce library services to minimum requirements;
- Reduce counseling services to minimum requirements;
- Reduce administrative services to minimum requirements;
- Eliminate staff development.

Severe Impact

The severe impact level would consist of reductions in direct educational program offerings.

- Reduce or eliminate gifted programs;
- Reduce or eliminate advanced placement offerings;
- Reduce or eliminate electives in all core curriculum areas that exceed the minimum offering requirement;
- Reduce the number of teachers by increasing pupil enrollments per classroom;
- Reduce the number of teachers by combining grade levels (e.g., 1st and 2nd, 3rd and 4th, etc.);
- Reduce or eliminate minimum offerings required for accreditation.

In view of mandated programs that school districts are required to offer, the rising cost of materials and supplies, and the fact that some of these reductions are only deferrals and not real cuts, it is

Table 3
Projected School Budgets With and Without the 2 Percent Lid Law
(Based on a $100 Base Year Budget)

Budget Period	Budget Without Lid (1)	Budget With Lid (2)	Difference (3)
Year 1	$106.10	$102.00	-$4.10
Year 2	112.57	104.04	- 8.53
Year 3	119.44	106.12	-13.32
Year 4	126.72	108.24	-18.48
Year 5	134.45	110.40	-24.05

conceivable that many of Nebraska's school districts will have to consider areas listed under the severe impact category within a year or two of enactment of the 2 percent lid law. A considerable number of schools probably would lose their accreditation, and undoubtedly many school districts would be forced to close schools.

The impact likely would be more severe in the rural areas of Nebraska. On the quality side of education, optimal education levels likely would be reduced to minimum levels, which would be a move counter to President Bush's national goal of substantially enhancing the quality of education by the year 2000.

Summary

The mathematics of the 2 percent lid law clearly indicate that such a law would place severe restrictions on governmental units of the state. Several summary observations can be made about the impact of the 2 percent lid law.

1. Growing communities would be hit harder by the 2 percent lid, especially small growing communities. This point is based on the fact that economic growth requires growth in public services.

Economic growth for growing communities can exceed 2 percent. Growth rates in excess of 2 percent are likely for smaller communities because the base is smaller.

For example, a business expansion of 50 employees in a community of 3,000 mathematically is a larger percentage increase when compared to the percent increase of 50 employees in a community of 100,000.

2. Even in Nebraska's declining communities, the 2 percent lid could contribute to the closing of community-owned hospitals and nursing care facilities.

About half of Nebraska's hospitals, including the University of Nebraska Medical Center, are owned by cities, counties, hospital districts, or the state. A fifth of the state's nursing homes are owned by cities, counties, or the state.

3. Under the 2 percent lid law, governments would be penalized for past practices of government efficiency. This was the situation in the hypothetical Goodville case.

4. The 2 percent lid law could increase local property taxes to offset reductions in state aid to local governments. Because the state legislature also would be required to operate under the 2 percent lid law, it is conceivable that the legislature might cut state aid to local governments. That could force local governments to increase property taxes to finance even a 2 percent budget increase.

All in all, the 2 percent lid law likely would impact economic growth severely for the thriving communities of Nebraska. That, in turn, could jeopardize Nebraska's ability to compete with other states for industrial growth and development.

Moreover, the 2 percent lid law would run counter to the state's efforts to promote economic development, because the 2 percent lid law most likely would eliminate Nebraska's prospects for future economic development. In short, Nebraska's potential for economic growth and development likely would be transferred to our neighboring states if Nebraskans enact the 2 percent lid law.

Two individuals were invaluable in obtaining background information for this article. Mr. Dale Siefkes, executive director of the Nebraska Association of School Boards, and Mr. Jack Sutton, city administrator and acting finance director of the City of Fremont, provided data, analysis, and several different perspectives on the possible effects of the 2 percent spending lid amendment.

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Review and Outlook

John S. Austin, Research Associate
UNL Bureau of Business Research

National Outlook

The Budget Compromise

The budget compromise and its possible economic impacts currently are primary concerns. At the time this is written in early October, we are in the midst of debate. The House failed to pass the original compromise, but legislation currently has been approved that allows broad outlines of a budget compromise.

A budget compromise is necessary because the deficit has gotten out of hand. Although in past years we struggled to meet Gramm-Rudman targets, meeting the targets was usually a matter of artful manipulation. This year, the deficit is almost $0.25 trillion. The savings and loan reorganization and the Middle East crisis make matters worse. Although these two items may be kept off-budget, no one is fooled. Government spending is still government spending, no matter what label is applied.

The compromise of September 30 was more than the Band-Aid that I originally had expected, but far from a complete cure for the deficit problem. The compromise had the potential to anger everyone. It focused on sin taxes—the tobacco, alcohol, and gasoline taxes.

Furthermore, there were cuts in Medicare spending and payments to farmers. There were also luxury taxes on expensive cars and fur coats. It was difficult to find any group that would have emerged unscathed from the compromise. The package hit the poor the hardest. Most taxes raised were regressive taxes. The impact on the rich would have been minor.

The original compromise died in the House of Representatives. A new compromise was reached the ensuing weekend. The second compromise eased the original Medicare provisions and made adjustments to the original tax proposals. Details of the new proposal are to be resolved by various congressional committees. The proposal ultimately will be brought before Congress.

No one is completely happy with the new compromise, but it is essential that a compromise be passed in order to avoid implementation of the Gramm-Rudman ceilings. Under current circumstances, the ceilings would impair the functioning of the federal government severely.

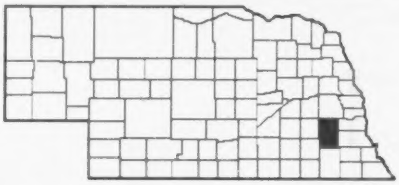
The major issue is whether a budget compromise will restore confidence in the economy. There are two key places where this confidence can be reflected: the financial community and the household. The stock market immediately responded positively on the Monday following the announcement of the original last minute compromise. The next few weeks will show whether the confidence of the stock market will continue.

Whether consumer confidence will be impacted by the budget compromise will take time to determine. Consumer confidence surveys are conducted monthly. There is a publication lag between the time of the survey and when it is released. In August, following the start of the Iraqi invasion, both the University of Michigan and the Conference Board surveys showed that consumer confidence had plummeted from already weakened levels.

County of the Month

Lancaster

Lincoln--County Seat



License plate prefix number: 2
Size of county: 846 square miles, ranks 26th in the state
Population: 211,600 (estimated) in 1988, a change of +9.7 percent from 1980
Median age: 27.5 years in Lancaster County, 29.7 years in Nebraska in 1980
Per capita personal income: $15,078 in 1988, ranks 26th in the state
Net taxable retail sales ($000): $1,600,398 in 1989, a change of +4.1 percent from 1988; $810,989 during January-June 1990, a change of +6.0 percent from the same period one year ago
Number of business and service establishments: 5,466 in 1988; 50.6 percent had less than five employees
Unemployment rate: 2.5 percent in Lancaster County, 3.1 percent in state for 1989
Nonfarm employment (1989):

	State	Lancaster County
Wage & salary workers	705,672	118,834
	(percent of total)	
Manufacturing	13.4%	12.1%
Construction and Mining	3.6	3.3
TCU	6.5	5.5
Retail Trade	18.5	18.2
Wholesale Trade	7.6	4.5
FIRE	6.8	7.2
Services	23.7	22.9
Government	19.9	26.3
Total	100.0%	100.0%

Agriculture:

Number of farms: 1,508 in 1987, 1,547 in 1982
Average farm size: 297 acres in 1987
Market value of farm products sold: $55.7 million in 1987 ($36,900 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Restoring consumer confidence is important, as consumer spending accounts for two-thirds of Gross National Product (GNP). With low consumer confidence, it will be hard to avoid a recession.

With a recession at our front door, some observers have asked why we are concerned about the federal deficit. Shouldn't government spending be encouraged to stimulate the economy and possibly prevent a recession?

There are two responses to this question. First, a $0.25 trillion deficit is a stimulant. The size of the compromise cut won't make that much difference.

Second, the issue of confidence in our government is paramount. If consumers and the domestic and international financial communities loose faith in our government, the result could be a collapse in consumer spending, a downturn in the U.S. stock market with a perceived loss of wealth, and a flight from the U.S. dollar with an attendant outflow of foreign capital.

The Weak Economy

News of a weak economy continues. The final GNP figures show real second quarter growth of only 0.4 percent. This is a substantial downward revision from previous reports of a 1.2 percent increase. The economy may be even weaker than the 0.4 percent figure suggests.

Details are buried in some of the more obscure GNP accounts. Final sales (GNP less the adjustment for changes in business inventory) were down 0.7 percent. The same figure less Commodity Credit Corporation (CCC) inventory change decreased 1.5 percent.

Only three components of GNP increased. Consumption of services offset decreases in goods consumption. Personal consumption expenditures showed a small increase (0.2 percent).

Second, changes in nonfarm business inventory were strong. The change in inventory was more a matter of goods that did not sell than an intentional building of inventories. In the long run, increased nonfarm business inventory may hurt the economy. If businesses fear a recession, they may cut inventories to keep them in line with expected drops in sales volume.

Last, federal government spending—mostly nondefense—was a strong positive. The biggest change was a reversal of a decumulation of CCC inventories. CCC inventories decreased $7.0 billion in the first quarter and increased $1.1 billion in the second. These changes led to a total change in CCC inventory alone of $8.1 billion for the second quarter. If any of these three changes had been negative, GNP would have decreased. Thus, the economy was weak in the second quarter.

Things did not improve in August. Housing starts fell for the seventh consecutive month. They were down 1.7 percent from July. The unemployment rate crept from 5.5 percent in July to 5.6 percent.

Capital spending plans were cut again in August. Industrial production fell 0.2 percent. Personal income rose marginally (0.3 percent) in nominal terms in August.

Once inflation and taxes were removed from the figures, real disposable personal income decreased 0.3 percent. Real spending fell 0.1 percent. A major concern is that inflation spawned by the Middle East crisis has just begun. As inflation works its way through the economy, it will become increasingly difficult for incomes to keep pace with inflation.

Prices and Interest Rates

Oil prices have been on a roller coaster ride since the Iraqi invasion began. Before the invasion, west Texas crude intermediate, a U.S. benchmark crude oil, was selling in the area of $18 per barrel. Following the invasion of Kuwait and the loss of 4 million barrels per day from world production of crude, oil prices shot up–west Texas crude touched $40 per barrel. Crude prices are hovering in the mid-$30 area.

Price movements have been speculative. In September OPEC, principally Saudi Arabia, the United Arab Emirates, and Venezuela, covered over half of the loss in world production. World stocks are high. They were reported as 2.93 billion barrels in commercial onshore inventories at the end of August. That was an increase of 87 million barrels from the previous year. U.S. stocks are up. Pending winter demands for fuel oil are causing speculative price changes.

It is not just the price of oil that should concern us. Oil is part of many products; its effects are felt throughout the price system. USDA estimates that food prices will rise 1 percent to 2 percent based on oil price rises alone. The August price index reflected first round price rises. The Consumer Price Index (CPI) and the Producer Price Index (PPI) showed the immediate direct effects of increases in energy prices on final consumers.

The CPI rose 0.8 percent in August, 9.6 percent at an annual rate. The increase without energy prices was half the reported gain. The gasoline prices used in that calculation showed an increase of 7.6 percent. We all know better. Pump prices have risen over 30 percent from late July.

The next report on the CPI should show still another large increase in gasoline prices. As an interesting sidelight, August retail sales dropped 0.6 percent, but gasoline station sales jumped 6.4 percent.

The PPI increase was larger than that of the CPI. The PPI for finished goods

Table 1
National Indicators

	Annual		Quarterly (SAAR)			
	1988	1989	1989:III	1989:IV	1990:I	1990:II
Real GNP (% change)	4.5	2.5	1.7	0.3	1.7	0.4
Real Consumption (% change)	3.6	1.9	4.6	-0.8	1.1	0.2
Housing Starts (millions)	1.5	1.3	1.3	1.3	1.4	1.2
Auto Sales (millions)	10.6	9.9	10.8	8.7	9.7	9.5
Interest Rate (90 day T-bill)	6.7	8.1	7.8	7.6	7.8	7.8
Unemployment Rate (%)	5.5	5.3	5.3	5.3	5.3	5.3
Money Supply, M2 (% change)	5.1	4.0	6.9	7.0	6.2	2.9
Industrial Production Index (1987=100)	105.4	108.1	108.1	108.1	108.3	109.4

NOTE: SAAR—Seasonally Adjusted at Annual Rates
Source: Bureau of Economic Analysis

increased 1.3 percent or over 15 percent at an annual rate. The PPI without energy rose 0.5 percent. Finished energy prices alone grew 9.6 percent. Crude petroleum prices jumped 62.5 percent, the largest monthly increase ever. Total unfinished goods increased 9.3 percent.

We will continue to see inflation increases. I would expect the general level of inflation to settle in the 8 percent to 10 percent range. Increases beyond that are possible as long as the Iraq/Kuwait situation remains unresolved. Because inflation expectations help determine long-term interest rates, high inflation will bring higher long-term interest rates. Although the expectation of increased long-term rates seems plausible, it is difficult to speculate about the direction of short-term rates.

The Federal Reserve controls short-term rates closely. Now the Fed faces a dilemma–should it lower short-term rates to stimulate the economy (with the possibility of bringing even greater inflation) or raise short-term rates now in an effort to control inflation (only to see the economy enter a recession that much quicker)?

If the Fed chooses to fight the near-term recession by lowering interest rates, we could see a broadening spread between short-term and long-term interest rates.

Nebraska Outlook

Once again Nebraska reported the lowest unemployment rate in the country for July. In July, Nebraska's unemployment stood at 2.2 percent. The next lowest state was Hawaii at 2.8 percent. The lowest city unemployment rate in the country was Iowa City at 1.9 percent, followed closely by both Lincoln, Nebraska and Madison, Wisconsin at 2.0 percent. In fourth position was Charlottesville, Virginia.

All four cities are major university towns. Students are not in the labor force unless they work: An unemployed student is not in the labor force, but an employed student is counted in the labor force. This counting phenomenon helps account for extremely low levels of unemployment.

Also, these rates are estimates. Estimates are subject to error. In more recent data, the state's unemployment rate is now 2.3 percent for August. It will be difficult to maintain such a low unemployment rate if a recession begins in the near future.

Job formation is helping to keep our unemployment rate low. In August, the number of jobs increased 2.5 percent versus a year ago. That figure is in line with increases that we have reported for several months.

According to the Federal Reserve Bank of Kansas City, Nebraska's job growth in the first half of this year was 2.6 percent at a seasonally adjusted annual rate. That figure was only 0.1 percent ahead of the U.S. average. In comparison to other Tenth Federal Reserve District states, Nebraska was only 0.1 percent behind Oklahoma and 0.4 percent behind Colorado. Nebraska led all other Tenth District states in job growth (Kansas, New Mexico, Missouri, and Wyoming) and led the Tenth District average by 0.9 percentage points.

Retail sales in Nebraska continue to do well. In June statewide retail sales increased 6.0 percent. On a year-to-date basis through the first half of the year, retail sales have grown 6.2 percent. By comparison, the year-to-date CPI increased 4.9 percent. Thus, real retail sales were up approximately 1.3 percent.

Despite that good news, retail sales in either current dollars or constant dollars have not met their January peaks. One should not make too much of high seasonally adjusted figures on months that have low seasonal factors. That's the case for the month of January. Nevertheless, the constant dollar sales increases are reassuring, given the weakened state of the economy. Maintaining that level of retail sales advance will be difficult when the economy turns down.

Nebraska harvest is underway. Most major grain crops are in good or fair condition. There are areas of the state where there have been some difficulties, but for the state as a whole grain production appears to be strong this year.

There are still some long-run concerns over moisture conditions in the state.

Table II
Employment in Nebraska

	Revised July 1990	Preliminary August 1990	August % Change vs. Year Ago
Place of Work			
Nonfarm	719,829	721,555	2.5
Manufacturing	95,762	97,285	1.9
Durables	45,227	47,118	0.2
Nondurables	49,555	50,167	3.3
Mining	1,729	1,724	0.5
Construction	26,910	26,939	4.8
TCU*	46,591	46,577	1.2
Trade	186,415	186,766	1.4
Wholesale	55,749	55,287	2.9
Retail	130,556	131,479	0.8
FIRE**	48,552	48,361	-0.7
Services	173,026	173,603	3.7
Government	140,826	140,296	4.3
Place of Residence			
Civilian Labor Force	863,424	838,884	2.3
Unemployment Rate	2.0%	2.3%	

* Transportation, Communication, and Utilities
**Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table III
Price Indices

	August 1990	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	131.6	5.6	5.0
Commodities	122.8	5.2	4.5
Services	140.9	5.9	5.4
Producer Price Index (1982 = 100)			
Finished Goods	119.2	5.2	4.3
Intermediate Materials	114.4	2.1	1.0
Crude Materials	110.2	9.1	1.7
Ag Index of Prices Received (1977 = 100)			
Nebraska	161	3.9	3.5
Crops	121	-4.7	-7.0
Livestock	186	8.1	8.6
United States	150	4.2	3.0
Crops	127	0.8	-4.0
Livestock	174	8.1	8.9

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

Subsoil conditions in recent reports are showing a return of dryness. Once crops are harvested, some good heavy winter rains and snow would help our soils.

USDA recently released figures estimating the cost penalties to farmers of increases in oil prices. In short, the jump in oil prices will decrease 1991 net farm income. The USDA estimates that a $30 per barrel price of crude will raise U.S. farm cost $1.7 billion. A $40 per barrel price will raise farm costs $2.6 billion. Nebraska farmers will not be exempt from these increases.

At the same time that Nebraska farmers face an increase in their costs, they may face a reduction in farm payments. The original compromise budget bill would have cut another $13 billion from commodity subsidies over the next five years. That overall goal is still intact in Congress. The first year cut has been reduced to $1 billion in this fiscal year starting October 1, 1990. Details of the cut will be determined by the Senate and House Agriculture Committees.

Nebraska construction continues to do well according to F.W. Dodge. In August gains in residential and nonbuilding construction did not fully offset drops in nonresidential construction. For the month as a whole, total construction values were down 4.7 percent from year ago levels. The year-to-date averages are still showing solid advances in Nebraska.

On a year-to-date basis through August, building square footage is up 15.8 percent. Total value is up 21.0 percent. In contrast with national activity, Nebraska housing starts on a year-to-date basis have increased 21.3 percent. Most of the strength lies in the apartment building sector.

Correction

In the August issue of *Business in Nebraska*, total personal income for Lancaster County was shown as $2,509.2 million. This number should have been $3,190.3 million.

Table IV
City Business Indicators
June 1990 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA (STATE)	6.0	10.4
Alliance	5.4	100.0
Beatrice	6.0	103.7
Bellevue	4.7	-42.2
Blair	4.7	-30.0
Broken Bow	5.7	378.1
Chadron	21.0	-60.7
Columbus	8.6	11.0
Fairbury	4.2	511.1
Falls City	10.8	-15.9
Fremont	9.3	120.4
Grand Island	7.9	22.3
Hastings	8.2	-13.6
Holdrege	5.4	18.3
Kearney	7.8	119.5
Lexington	10.9	-55.4
Lincoln	5.4	6.1
McCook	4.7	26.9
Nebraska City	1.6	69.0
Norfolk	11.6	-33.7
North Platte	12.2	124.0
Ogallala	11.4	50.9
Omaha	4.7	9.6
Scottsbluff/Gering	6.1	0.0
Seward	8.3	118.2
Sidney	7.7	-60.1
South Sioux City	3.1	-40.7
York	12.3	17.7

(1)As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2)Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

Figure I
City Business Index
June 1990 Percent Change from Year Ago

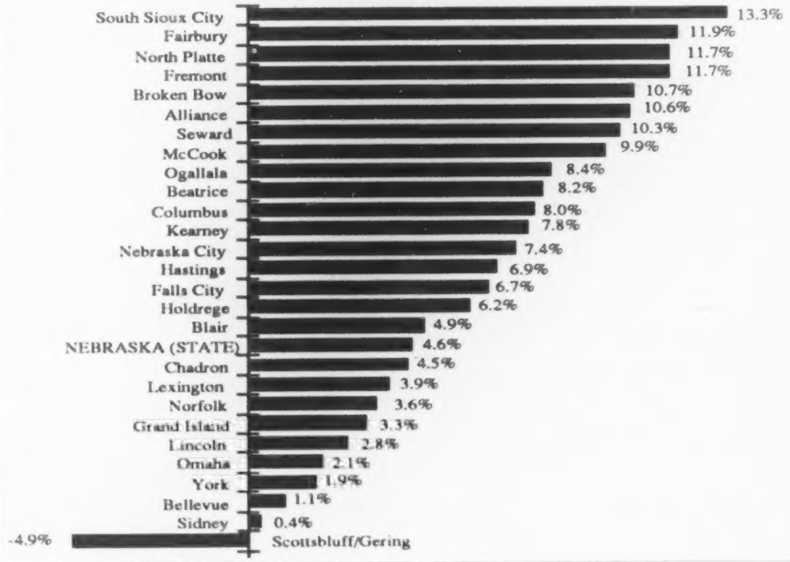
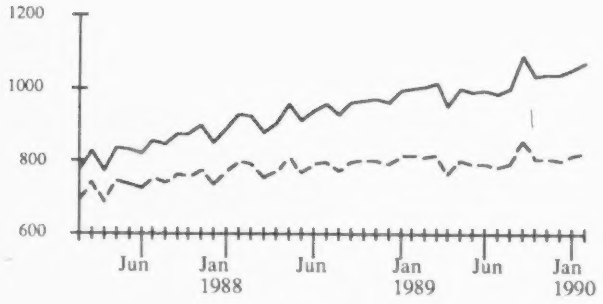


Table V
Net Taxable Retail Sales of Nebraska Regions and Cities

	City Sales (2)		Region Sales (2)		
Region Number and City (1)	June 1990 (000s)	% Change vs. Year Ago	June 1990 (000s)	% Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA	$962,737	7.1	$1,107,597	6.0	6.2
1 Omaha	317,774	2.7	400,698	2.4	4.4
Bellevue	13,408	7.7	*	*	*
Blair	4,918	14.3	*	*	*
2 Lincoln	121,393	3.9	144,515	3.9	6.0
3 South Sioux City	5,702	37.6	8,903	23.0	29.3
4 Nebraska City	3,782	13.5	19,959	10.0	8.6
6 Fremont	17,943	12.4	33,137	10.5	8.1
West Point	2,917	18.1	*	*	*
7 Falls City	2,127	10.2	9,573	10.4	6.3
8 Seward	4,285	10.5	15,480	4.8	7.6
9 York	6,386	-6.3	16,191	-1.7	2.0
10 Columbus	16,319	12.3	30,548	9.6	7.1
11 Norfolk	19,904	4.7	36,981	6.0	6.1
Wayne	2,967	23.2	*	*	*
12 Grand Island	34,749	1.0	51,173	1.9	3.4
13 Hastings	17,680	13.0	38,447	4.4	2.4
14 Beatrice	7,789	8.8	19,363	12.1	11.4
Fairbury	2,953	5.8	*	*	*
15 Kearney	20,215	5.1	30,268	3.9	4.5
16 Lexington	6,297	10.7	18,074	11.0	4.2
17 Holdrege	4,894	10.7	9,009	2.2	5.5
18 North Platte	18,192	9.3	23,072	7.7	7.6
19 Ogallala	6,845	7.0	14,556	8.5	4.8
20 McCook	8,957	19.4	12,811	14.7	6.5
21 Sidney	3,910	7.1	8,520	10.8	3.7
Kimball	1,941	23.2	*	*	*
22 Scottsbluff/Gering	15,530	-14.0	26,805	2.3	5.0
23 Alliance	5,657	15.2	15,108	5.3	2.8
Chadron	2,751	2.9	*	*	*
24 O'Neill	4,328	-6.4	16,637	4.1	7.9
Valentine	3,440	30.3	*	*	*
25 Hartington	1,835	27.9	9,474	13.1	5.4
26 Broken Bow	3,657	5.1	13,325	4.7	3.0

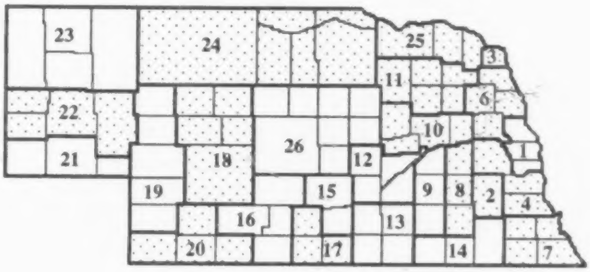
(1)See region map
(2)Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales
* Within an already designated region
Compiled from data provided by the Nebraska Department of Revenue

Figure II
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure III
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

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Business In Nebraska

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County of the Month 8

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A Common Sense Guide for Surviving the Next Recession
Some Do's and Don'ts

John S. Austin, Research Associate, Bureau of Business Research

Given the possibility of higher inflation, higher long-term interest rates, and a recession by the end of the year, it is reasonable to ask what can be done to protect investments or make money during a downturn. This article offers some basic do's and don'ts.

These recommendations are predicated on the idea that we will see higher rates of inflation and higher long-term interest rates. If these two trends do not materialize, such recommendations would need to be revised considerably.

Do's and Don'ts

1. Don't quit your current job. Quitting a job on the speculation that another one will be found soon is poor strategy in any circumstance, especially when a recession is near. If you insist on job-hopping, do it from a basis of being employed rather than being unemployed.

2. Don't buy long-term bonds. Oddly enough, some consultants are advising investors to buy long-term bonds. These consultants must not believe that inflation will increase over the next few quarters; consequently, they do not believe that long-term interest rates will rise.

How they reached such a conclusion in the face of roller coaster oil prices is difficult to understand. I foresee round after round of inflation ensuing from increases in wholesale prices. An immediate settlement of the Middle Eastern crisis could void my forecast. The probability of an early settlement, unfortunately, is small.

3. Do look for bargains. The time to jump into low priced investments is near. You first need to get your portfolio into a fairly liquid state. When things look most bleak or when the stock market is testing new lows is the best time for long-term investors to enter the stock market. Entering the stock market when the market is establishing new highs is a difficult way to make money unless one has particularly specialized knowledge.

4. Buy real assets? Many economists encourage investors to buy real assets when inflation is increasing. Today's dollars will buy relatively cheap assets that can be sold for a gain after inflation. Such a move is a correct course of action when faced with hyperinflation such as we saw in Germany before World War II, in China after World War II, or in Brazil in more recent days. But what real assets should we buy?

State Economic Scoreboard

Change from same month one year ago
See Review and Outlook on page 3 for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (July) Constant $	↑ 16.5%	↑ 14.4%	↑ 18.4%
Nonmotor Vehicle Sales (July) Constant $	↑ 0.4%	↓ -3.9%	↑ 5.2%
Building Activity (July) Constant $	↑ 4.2%	↑ 8.3%	↓ -1.1%
Employment (September)	↑ 2.8%	↑ 1.0%	↑ 4.7%
Unemployment Rate* (September)	↓ 2.1%	↓ 2.3%	↓ 2.0%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

Let's look at two major areas: real estate and other real assets. Real estate investment requires specialized knowledge. It is possible for real estate prices to fall rather than rise. Examples of this phenomenon are Texas in the mid 1980s or Midwestern agricultural land in the same time period.

Real estate is a good investment when you are sure of the location. Renovation has been a fairly hot investment area, but it is fraught with danger. Typically, renovated neighborhoods that have had the greatest return have been those that were formerly low income areas. Who is to say that a specific renovated neighborhood will see increases in value? Just because one or two investors are willing to try a specific neighborhood is no guarantee that the critical mass needed to move that neighborhood into a high rent area will be reached.

Real estate investors should know that construction costs form a floor for value and should be sure that construction costs are increasing. In Nebraska, real estate price inflation has been only moderate in the last decade. This trend contrasts sharply with real estate price trends on either coast. In Nebraska, there is plenty of available land for building. We do not have the rarity value that characterizes building lots in densely crowded areas such as California and New Jersey. Further, Nebraska residential construction laborers are generally paid less than their counterparts on either coast.

If you are in a stable job situation that will not be vulnerable to an economic downturn and are considering purchase of a new residence within a year, you should consider buying earlier than planned. If the long-term interest rate forecast is correct, mortgage rates will rise over the next several months. The trend of long-term interest rates must be balanced against Nebraska's generally firm real estate market. When the economy turns down, housing activity and housing prices could deteriorate. The buy now advice does not necessarily apply to the speculator, but may work for someone committed to an area and a job for the long term.

Advice on the question of what other real assets to buy is often fuzzy, silly, or fraudulent. It is imperative that investors avoid oddball investments, especially when they do not know the market underlying these investments. Even well-known assets such as gold or gold coins, art, or real estate have unique markets. There is no quicker way to lose your money than to invest in something with which you are unfamiliar or to deal with persons whose trustworthiness is not guaranteed. There is no free lunch.

5. Don't increase your debt. I cannot recommend that American consumers increase their debt for consumer purchases. Some economists have argued that if you are facing future inflation, you should buy now and increase your indebtedness to the maximum. The value of goods may increase in hyperinflation faster than will credit costs. But in the U.S. economy, it is difficult to encourage debt. Too many persons have paid a high price for overextending their personal credit. Furthermore, there is no guarantee that inflation will outpace credit costs. Instead, I expect to see inflation ratchet upward in the near term as we digest the oil price inflation. Then inflation should taper. Long-term interest rates tend to follow inflation levels.

6. Skilled investors should consider the options market. If you are a skilled options player, big bucks are available on the options market. It is critical to repeat that the underlying assumption is that inflation will increase and long-term interest rates will increase. The options market provides a legal way to bet that long-term interest rates will increase. This bet can be made with a put option on long-term bonds. The options market is a gamble. If you are not familiar with the options market, I strongly suggest that you should not consider it. If you do know about the options market, then review your own long-term interest rate forecast before jumping in.

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Review and Outlook

John S. Austin, Research Associate
UNL Bureau of Business Research

National Outlook

The Budget Compromise—One More Time

Perhaps no other topic has consumed as much political capital and has bored, amused, interested, and frustrated the American public as much as the budget compromise of 1990. The budget compromise was (is) an important economic issue. We will summarize the results and then retire the subject.

In contrast to the initial compromise that was rejected by Congress, the new compromise allows a heavier dependence on a change in the income tax system and a smaller dependence on some of the regressive tax features of the original compromise.

The income tax bubble has been lanced. A new marginal tax rate of 31 percent for the richest taxpayers has been established. As a compromise, a capital gains tax rate of 28 percent also was set.

Furthermore, deductions are more limited for incomes above $100,000. The Medicare payroll tax was extended to wages up to $125,000. Federal gasoline taxes will increase a total of $5 billion a year, reflecting an increase from nine cents a gallon to 14 cents a gallon.

The tobacco tax was raised four cents per pack next year and an additional four cents in 1993. Alcohol tax will increase revenues $8.8 billion over the coming five year period. An air travel tax will raise nearly $12 billion. A luxury goods tax will raise $1.5 billion. Other tax increases will raise nearly $45 billion over the period.

In addition, two sets of tax breaks were given, one an earned income tax credit for the working poor and another for the nearly rich who had a reduction in their income tax marginal rate from 33 percent to 31 percent.

Medicare provisions of the first compromise were reduced sharply and now show an increase of $42.4 billion over the five year period. Defense reductions have been locked in at $182 billion over the five year period. The reduction in subsidies to farmers remains at $15 billion. Government employees will not be allowed to withdraw lump sums from their pension plan. Tighter rules will be applied to the Veterans Administration. User fees will be increased nearly $19 billion.

The budget compromise was essential. The actual deficit in fiscal year 1989 was $220 billion. The 1990 deficit was to increase beyond that–well over twice the Gramm-Rudman target of $100 billion. The largest single item that drove the budget deficit upward was the bailout of the thrift institutions.

Compared to the size of the deficit (or, more importantly, to the size of the total national debt), the corrections in the budget compromise are small. Nevertheless, they are symbolic and they are targeted to address the issue of declining confidence in government.

Consumer confidence plummeted in August. It also dropped in September. With nearly universal agreement that the economy was on the brink of a recession, it was imperative to reverse the drop in consumer confidence as rapidly as possible.

Recent Evidence and the Outlook

The third quarter Gross National Product (GNP) advance report increase of 1.8 percent in GNP was a surprise to many. This increase contrasted sharply with the anemic 0.4 percent increase in the second quarter. We need to break down the figures to understand where the increase originates.

The primary source of the increase was consumer spending. Total personal consumption expenditures in real terms increased 3.6 percent at annual rates in the third quarter. Advances in nonresidential investment were offset by decreases in residential investment combined with the change in business inventories. Net exports were negative for the third quarter. The government sector saw a small increase, primarily from additional state and local government expenditures.

GNP figures are some of the most frequently revised numbers. A major flaw in the advance third quarter release is that it shows a decrease in inflation. The implicit GNP deflator dropped from 4.7 percent in the second quarter to 3.4 percent in the third quarter. This decrease was reported despite rapid increases in oil prices in August and September.

The outlook for the fourth quarter is dismal. Consumer confidence is an overwhelming problem. Consumer spending accounts for two-thirds of total GNP. Although we have seen some recent moderation in oil costs, the gyrations of wholesale oil prices will drive a forecaster crazy. Wholesale oil prices momentarily went below $30 per barrel in October. Wholesale oil prices per barrel now stand in the mid $30s. The impact of these increased oil prices have yet to work their way through the economy.

The Producer Price Index increased 1.6 percent in September, equal to an annual rate of 20.9 percent. Gasoline prices rose 20.6 percent for September alone. A 1.6 percent increase in the Producer Price Index in September contrasted to a 1.3 percent increase in August. Consumer prices did not respond as sharply.

The Consumer Price Index rose 0.8 percent, approximately 9.6 percent at annual rates. Most of the increases came from the oil sector. If we exclude energy, the Consumer Price Index gained 0.4 percent.

A consensus of economic forecasters calls for a recession starting in the fourth quarter and running through the first quarter of next year. The sizes of projected decreases are small. The forthcoming recession is characterized as one that is shallow and short.

Similarly, the recovery from the recession will be one characterized by weak growth rates. This contrasts with the usual postrecession behavior where the strongest rates of increase over a business cycle are exhibited in the early stages of recovery. Thus, 1991 can be characterized as a *go nowhere* year for the national economy.

There is a small possibility that the shallow short recession will be echoed by another recession within a year. The theory is that the cleansing aspects of a recession will not occur because the recession was not long enough or deep enough. Thus, inflation will still run rampant, and characteristic problems of a weak economy will continue. Once that echo recession is over, the possibility for strong growth rates emerges.

The Return to Normal Growth

One may ask what is needed for a return to more rapid growth rates. The primary need is a settlement of the Middle East crisis. The relief from military involvement along with a resolution of the oil crisis could reduce prices.

Another element badly needed is the overall restoration of confidence in the U.S. economy. Perhaps a key element would be implementation of a deficit reduction resolution. Greater progress on deficit reduction would be a strong plus for restoring confidence. To make further progress would require spending cuts. All areas must be available for cutting. The Congress needs to find a way to establish and stick to an overall spending ceiling consistent with deficit reduction.

One other area for returning to high growth rates is the investment tax credit. I do not favor the capital gains tax as a way to stimulate investment. The capital gains tax favors those persons who make money by trading assets. What is needed is the creation of new assets. The investment tax credit is tied to the creation of new assets.

When a businessman or businesswoman invests in new plant and equipment, then a credit can be applied against his or her federal income tax liability. Trading of credits could be allowed so that investors could take advantage of investment spending whatever their tax position. Investment spending is key to rebuilding the strength of U.S. commercial and industrial structure.

Perhaps the last element in the list of things needed for a turnaround in growth rates is steady monetary policy. Flexibility can be allowed, but changes made by the Federal Reserve must be slow and predictable. A steady but flexible monetary policy will allow financial and business persons to anticipate changes in policy.

As an example, the Federal Reserve dropped the federal funds rate in mid-October from 8.25 percent to 8.0 percent. This reduction had been promised by the Federal Reserve if a reasonable budget compromise were reached. Whether the rate should have been dropped is a dilemma for the Fed.

Although it is desirable to fight recession, inflation is on the rise. There should be pressure to increase the federal funds rate within a fairly short period of time. We are losing foreign investors because of the relatively low interest rates paid on short-term securities in this country. Part of the dollar drop of recent days is related to the relative position of U.S. interest rates.

More Evidence on the Fragile Economy

The national unemployment rate rose to 5.7 percent in September versus 5.6 percent in August. The unemployment rate remained at 5.7 percent in October. These figures contrast to the 5.3 percent level that was sustained for nearly a year starting in April 1989.

Retail sales grew 1.1 percent in September after a meager increase of 0.4 percent in August. Industrial production advanced 0.2 percent in September. Housing starts dropped 0.6 percent, a level of 1,135,000 units at annual rates.

Table I
Income and Earnings in Nebraska*
($ Millions)

	Second Quarter 1988	Third Quarter 1988	Fourth Quarter 1988	First Quarter 1989	Second Quarter 1989	Third Quarter 1989	Fourth Quarter 1989	First Quarter 1990	Second Quarter 1990	% Change 1990:II vs. Year Ago
Income										
Total Personal Income	23,891	22,704	23,734	24,818	24,875	24,554	25,294	26,685	26,584	6.9
Nonfarm	21,260	21,548	22,003	22,543	22,990	23,366	23,799	24,182	24,493	6.5
Farm	2,631	1,156	1,732	2,275	2,885	1,188	1,495	2,503	2,091	10.9
Earnings by Industry**										
Ag. Services, Forestry & Fisheries	137	134	139	136	143	149	147	155	154	7.7
Mining	58	59	58	56	54	53	55	56	58	7.4
Construction	919	905	945	915	934	919	923	974	910	-2.6
Manufacturing	2,362	2,410	2,438	2,484	2,482	2,495	2,483	2,542	2,604	4.9
Nondurable	1,176	1,194	1,208	1,212	1,234	1,242	1,238	1,211	1,277	3.5
Durable	1,186	1,216	1,230	1,272	1,248	1,253	1,246	1,331	1,327	6.3
TCU	1,657	1,686	1,675	1,734	1,730	1,723	1,738	1,745	1,785	3.2
Wholesale Trade	1,243	1,273	1,295	1,310	1,327	1,334	1,350	1,424	1,441	8.6
Retail Trade	1,608	1,645	1,675	1,694	1,699	1,731	1,749	1,781	1,778	4.6
Finance, Ins. & Real Estate	1,245	1,216	1,211	1,242	1,254	1,262	1,314	1,322	1,342	7.0
Services	3,585	3,682	3,792	3,887	3,968	4,075	4,160	4,206	4,323	8.9
Government	3,036	3,048	3,133	3,185	3,256	3,264	3,354	3,392	3,484	7.0
Federal, Civilian	472	480	486	501	506	511	516	528	560	10.7
Military	403	404	404	420	417	415	412	421	421	1.0
State & Local	2,160	2,165	2,243	2,264	2,333	2,338	2,426	2,442	2,503	7.3

* All data are seasonally adjusted at annual rates
** Earnings is the sum of wages and salaries, other labor income, and income earned by sole proprietors
*** Transportation, Communication, & Utilities
**** Finance, Insurance, & Real Estate

Source: Bureau of Economic Analysis, U.S. Department of Commerce

Automobile manufacturers are having difficulties. The Big Three auto manufacturers idled six plants in October. GM and Ford recently announced production cuts at 20 plants in early November affecting 44,000 workers.

Automobile sales numbers may start to look good for the remainder of this year when compared to last year, a form of analysis common in the business press. These automobile sales numbers will be in contrast to weak 1989 numbers for October and November and for the early December reporting periods. The issue is not how strong automobile sales are in contrast to the year ago figures, but how strong they are in contrast to figures earlier this year.

Nebraska Outlook

The personal income figures for the second quarter in Nebraska are found in Table I. Nebraska's personal income increased 6.9 percent in the second quarter versus a year ago. Nonfarm income increased 6.5 percent, while farm income increased 10.9 percent.

The biggest single nonfarm increase was in the federal government sector, which showed a gain of 10.7 percent versus a year ago. This jump was largely for temporary census workers. The next category to show a large increase was services, followed by wholesale trade.

Only the construction sector was negative in the second quarter–this figure makes no sense, given what we have seen in contracting for construction in Nebraska as reported by F.W. Dodge.

Although Nebraska's personal income grew 6.9 percent from a year ago in the second quarter, the second quarter's personal income was 0.4 percent below the first quarter level. In this sense, the glass is either half full or half empty. Perhaps the best way to characterize the second quarter is that growth was so rapid in the first quarter (5.5 percent ahead of the fourth quarter 1989, 5.9 percent ahead of the first quarter 1989) that it was difficult to maintain.

In the second quarter, the Plains region, the Far West, and the Southeast contributed to a slowdown in the nation's growth rate in personal income. All three regions showed a sharp drop in personal income growth rates compared to those in the first quarter. The Plains region grew only 0.3 percent in the second quarter versus 1.9 percent in the first quarter.

In the Plains region, only Iowa and Nebraska showed decreases in the second quarter from the first quarter and were the only two states in the nation to show decreases in the second quarter. In both cases, the first quarter advances were rapid when compared to fourth quarter 1989, 4.5 percent for Iowa and 5.5 percent for Nebraska.

Construction in Nebraska finally has showed some weakness. This weakness is in residential construction. According to F.W. Dodge, September housing starts were below a year ago levels. On a year-to-date basis through September, however, September housing starts remained 11 percent ahead of a year ago. Overall construction numbers were strong.

On a year-to-date basis, total contracts let increased 19 percent versus a year ago in dollar terms. The biggest subarea is nonbuilding construction, especially work on streets and highways. Other than residential construction, there are few areas where Nebraska's construction is lagging behind year ago levels.

The unemployment rate in Nebraska remains at 2.1 percent, compared to 2.9 percent a year ago–both figures are for September. Lincoln's unemployment rate in September reached 1.7 percent. This may be the low for the nation again.

Job growth continues with no apparent softening. September showed an increase of 2.6 percent, in line with increases we have reported for the last year and a half. Leading areas are construction at 5.5 percent, government at 4.4 percent, and nondurable manufacturing at 4.0 percent. (See Table II.) Weak areas are finance,

Table II
Employment in Nebraska

	Revised August 1990	Preliminary September 1990	September % Change vs. Year Ago
Place of Work			
Nonfarm	720,496	727,205	2.6
Manufacturing	97,403	97,513	2.3
Durables	47,063	46,784	0.6
Nondurables	50,340	50,729	4.0
Mining	1,729	1,662	1.9
Construction	26,934	25,977	5.5
TCU*	46,860	47,115	1.9
Trade	186,939	185,359	1.1
Wholesale	55,347	54,850	2.3
Retail	131,592	130,509	0.6
FIRE**	48,357	48,006	-0.8
Services	173,429	174,505	3.6
Government	138,845	147,068	4.4
Place of Residence			
Civilian Labor Force	838,581	824,073	2.0
Unemployment Rate	2.3%	2.1%	

* Transportation, Communication, and Utilities
**Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table III
Price Indices

	September 1990	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	132.7	6.2	5.1
Commodities	124.6	6.2	4.7
Services	141.4	6.0	5.4
Producer Price Index (1982 = 100)			
Finished Goods	120.3	6.0	4.4
Intermediate Materials	116.3	3.5	1.3
Crude Materials	115.1	12.8	3.0
Ag Index of Prices Received (1977 = 100)			
Nebraska	156	3.3	3.5
Crops	111	-12.6	-7.7
Livestock	185	10.8	9.0
United States	148	3.5	3.1
Crops	123	-2.4	-3.9
Livestock	173	8.1	8.8

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

insurance, and real estate; retail trade; and durable manufacturing. All have growth rates of 0.6 percent or less from a year ago and have decreased from August levels.

Retail sales in Nebraska increased 7.5 percent in July versus a year ago, 6.4 percent on a year-to-date basis through July. The peak in retail sales for this year was January. July figures fell from their first half averages. It is too early to say that the one month retail sales figures are a sign of weakness for the Nebraska economy.

Our comments on the agriculture sector remain unchanged. Although 1990 has been a good year to Nebraska farmers overall, we expect to see a decrease in net farm income in 1991 of 15 percent to 20 percent, due mainly to increases in oil prices. In addition, Nebraska farmers will start to see a pinch from a reduction in federal support payments.

Correction

In the October *Business in Nebraska*, net taxable city sales for Scottsbluff/Gering was shown as $15,530,000 for June 1990. This number should have been $18,788,000, and the percent change from a year ago should have been a 4.0 percent increase not a 14.0 percent decrease. This correction also changes the Scottsbluff/Gering index number in the City Business Index from -4.9 percent to +2.8 percent.

David DeFruiter

Marketing Opportunities in Korea and Taiwan

The U.S. Department of Commerce is planning to conduct a series of seminars around the country on marketing opportunities in Korea and Taiwan. These seminars will be designed especially for small and medium sized businesses.

These seminars are being arranged by the Commerce Department's Office of the Pacific Basin. For more information, contact the Korea/Taiwan Section of the U.S. Department of Commerce:

U.S. Department of Commerce
14th Street and
Pennsylvania Avenue N.W.
Korea/Taiwan Section
Room 2308
Washington, D.C. 20230

F. Charles Lamphear

Table IV
City Business Indicators
July 1990 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	6.4	6.9
Alliance	4.2	312.9
Beatrice	5.5	107.7
Bellevue	4.8	-40.8
Blair	4.8	-23.6
Broken Bow	4.7	705.4
Chadron	17.1	-57.4
Columbus	7.7	1.3
Fairbury	3.4	396.9
Falls City	9.8	-11.2
Fremont	8.6	14.5
Grand Island	7.1	14.2
Hastings	7.5	-2.8
Holdrege	4.4	15.4
Kearney	6.9	24.9
Lexington	9.8	-72.8
Lincoln	4.6	8.4
McCook	4.0	-4.0
Nebraska City	0.5	-13.5
Norfolk	11.0	-43.5
North Platte	11.3	117.2
Ogallala	10.8	66.5
Omaha	4.8	17.9
Scottsbluff/Gering	5.7	11.1
Seward	7.7	137.9
Sidney	6.7	-45.9
South Sioux City	3.0	-55.4
York	11.4	6.2

(1)As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2)Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

Figure I
City Business Index
July 1990 Percent Change from Year Ago

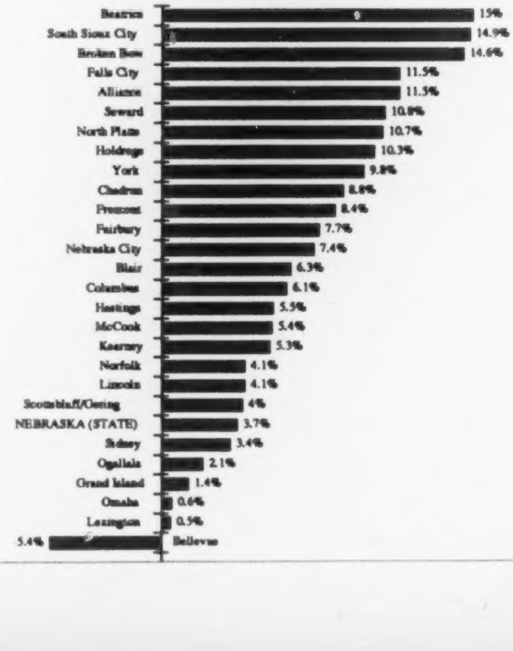


Table V
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)	City Sales (2)		Region Sales (2)		
	July 1990 (000s)	% Change vs. Year Ago	July 1990 (000s)	% Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA	$863,958	5.3	$1,018,696	7.5	6.4
1 Omaha	290,986	-1.6	373,354	1.3	3.9
Bellevue	11,494	-7.7	*	*	*
Blair	4,603	16.6	*	*	*
2 Lincoln	116,439	7.8	138,603	8.9	6.4
3 South Sioux City	6,802	44.8	8,966	36.7	30.4
4 Nebraska City	3,918	22.3	19,507	15.6	9.6
6 Fremont	17,355	13.1	31,051	15.0	9.1
West Point	2,583	12.3	*	*	*
7 Falls City	2,062	21.9	8,951	13.9	7.3
8 Seward	3,989	11.3	15,031	13.5	8.4
9 York	6,721	14.4	16,693	15.1	3.8
10 Columbus	15,118	9.9	27,093	12.6	7.8
11 Norfolk	18,912	8.5	35,568	12.8	7.0
Wayne	3,275	48.7	*	*	*
12 Grand Island	31,399	-1.7	46,383	1.9	3.2
13 Hastings	16,170	9.3	26,578	9.5	3.4
14 Beatrice	8,217	25.1	19,267	20.8	12.7
Fairbury	2,804	0.4	*	*	*
15 Kearney	19,911	6.7	29,466	11.2	5.5
16 Lexington	6,127	9.6	17,452	12.0	5.3
17 Holdrege	4,665	21.8	9,363	19.9	7.5
18 North Platte	16,920	8.5	22,123	12.5	8.3
19 Ogallala	6,050	-8.0	13,147	5.9	4.9
20 McCook	8,028	12.9	12,097	20.6	8.4
21 Sidney	4,246	11.8	8,740	12.3	5.0
Kimball	2,038	18.6	*	*	*
22 Scottsbluff/Gering	18,037	6.3	25,533	6.8	5.2
23 Alliance	5,447	10.4	14,752	15.1	4.5
Chadron	2,926	16.3	*	*	*
24 O'Neill	4,696	5.0	15,841	12.3	8.6
Valentine	2,948	16.1	*	*	*
25 Hartington	1,558	17.3	9,081	19.6	7.3
26 Broken Bow	3,539	9.7	12,082	8.4	3.8

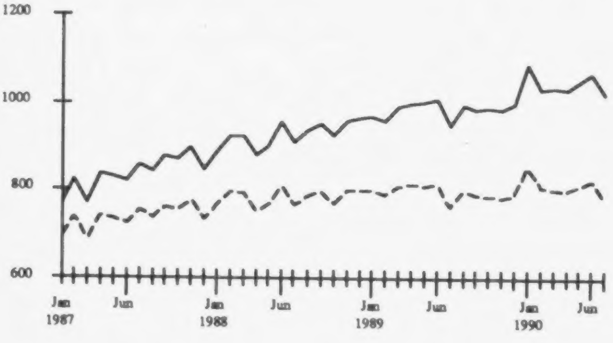
(1) See region map

(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales

*Within an already designated region

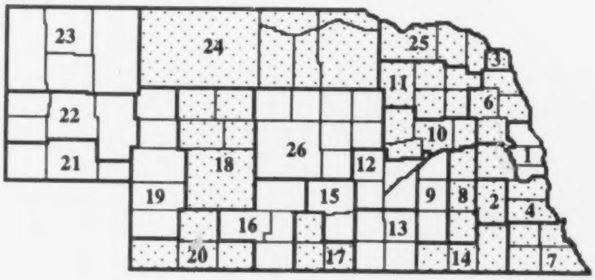
Compiled from data provided by the Nebraska Department of Revenue

Figure II
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure III
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

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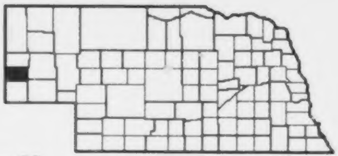
County of the Month

Banner



Harrisburg--County Seat

License plate prefix number: 85
Size of county: 738 square miles, ranks 32nd in the state
Population: 1,000 (estimated) in 1988, a change of +6.2 percent from 1980
Median age: 33.4 years in Banner County, 29.7 years in Nebraska in 1980
Per capita personal income: $15,398 in 1988, ranks 20th in the state
Net taxable retail sales ($000): $1,178 in 1989, a change of -18.0 percent from 1988; $780 during January-July 1990, a change of +22.6 percent from the same period one year ago
Number of business and service establishments: 5 in 1988; 80 percent had less than five employees
Unemployment rate: 2.3 percent in Banner County, 3.1 percent in Nebraska for 1989
Nonfarm employment (1989):

	State	Banner County
Wage & salary workers	705,672	109
	(percent of total)	
Manufacturing	13.4%	*
Construction and Mining	3.6	2.8%
TCU	6.5	*
Retail Trade	18.5	*
Wholesale Trade	7.6	*
FIRE	6.8	*
Services	23.7	*
Government	19.9	73.4
Total	100.0%	100.0%

*Data not available because of disclosure suppression.

Agriculture:

Number of farms: 212 in 1987, 200 in 1982
Average farm size: 1,942 acres in 1987
Market value of farm products sold: $16.3 million in 1987 ($76,962 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Business in Nebraska

PREPARED BY BUREAU OF BUSINESS RESEARCH
Association for University Business & Economic Research

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Business In Nebraska

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Prepared by the Bureau of Business Research, 200 College of Business Administration,
University of Nebraska-Lincoln, Lincoln, NE 68588-0406, 402/472-2334

How Nebraska Reacts to National Recessions

John S. Austin, Research Associate, Bureau of Business Research

With the ongoing talk of a downturn in the national economy, it is natural to ask how Nebraska may weather the oncoming storm. There is some talk that Nebraska is recession proof. A more accurate statement is that part of Nebraska's economy is vulnerable to a recession. If the recession is mild, it is possible that Nebraska may escape a downturn. Nebraska is influenced more heavily by the farm economy than is the United States as a whole. The farm economy is an important determinant of Nebraska's business cycle and is cause for concern for the 1991 state outlook.

To investigate the influences of a national recession on the Nebraska economy, we will look at three past recessions. These recessions are explored best graphically. The dates of the recessions are determined by the National Bureau of Economic Research. The three recessions we will consider are from November 1973 (peak) through March 1975 (trough); January 1980 through July 1980; and July 1981 through November 1982. The figures are shaded to show these national recessions. This analysis will focus on how particular sectors of the Nebraska economy may react to the national cycle.

The anticipated recession of late 1990 and early 1991 is expected to be short and shallow. The past recessions reviewed here are all deeper and (with one exception) longer than the expected forthcoming downturn. The exception is 1980.

We will start with an examination of employment by sector. Employment is a real variable not affected by inflation.

When we examine all the major sectors in the Nebraska economy, we find three general patterns:

- Pattern I shows a downturn paralleling all three of the national recession periods.
- Pattern II shows growth during the 1973-1975 recession, but follows both recession patterns of the 1980s.
- Pattern III shows no downturn in any of the recession years, although there is some flatness in growth.

We must issue a warning at this point. Recessions are not the only influence on the Nebraska business cycle. There are specific influences on individual sectors. For example, agriculture is important to Nebraska's economy, but the ag cycle does not follow national recessions.

The data for employment are not seasonally adjusted. Therefore, there may be some extra ups and downs in the series that are due to regular seasonal influences.

Pattern I

There is only one sector that fits Pattern I: the durable manufacturing sector. This

State Economic Scoreboard

Change from same month one year ago
See Review and Outlook on page 8 for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (August) Constant $	⇩ -14.1%	⇩ -21.3%	⇩ -7.5%
Nonmotor Vehicle Sales (August) Constant $	⇩ -5.6%	⇩ -12.1%	⇧ 1.6%
Building Activity (August) Constant $	⇩ -1.4%	⇧ 2.4%	⇩ -6.3%
Employment (October)	⇧ 2.3%	⇧ 1.0%	⇧ 3.6%
Unemployment Rate* (October)	⇩ 2.0%	⇩ 2.1%	⇩ 1.9%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

Recession Patterns in Nebraska Employment Sectors

Pattern I

Employment turns down in all three national recession periods.

Pattern II

Employment turns down in the last two national recession periods, but does not turn down in the first recession period.

Pattern III

Employment does not turn down during any of the three national recession periods.

sector's employment is displayed in Figure 1. This sector is most vulnerable to the business cycle, a pattern generally followed by durable manufacturing at the national level. In the first recession period, Nebraska's durable manufacturing grew at first, but then dropped sharply. On a peak-to-trough basis, employment losses for the three recessions were:

- Recession period 1, -16.8 percent;
- Recession period 2, -9.4 percent;
- Recession period 3, -17.7 percent.

For the 1980 recession there was a loss of nearly 5,000 jobs in durable manufacturing. For the other two recessions, the job losses were well in excess of 8,000 jobs from peak to trough.

Figure 1 reveals another interesting phenomenon. There is a cycle starting in mid-1984 and ending in the first quarter of 1986 that is not related to changes in the national economy. A recovery starts in the second quarter of 1986. There was no U.S. downturn at this time, although there was widespread talk of a recession. A national recession did not materialize; rather, the cycle was due to unique Nebraska effects. The downturn in Nebraska's durable manufacturing from 1984 to 1986 was more severe than the downturn of 1980 and almost as severe as the other recession period downturns were.

No other sector shares this clear pattern of downturns associated with the three recessions we study here. The construction sector was similar, but actual 1974 annual total employment exceeded 1973 total employment. Thus, construction is classified as a Pattern II sector.

Pattern II

A prime example of a Pattern II sector is shown in Figure 2. Nondurable manufacturing employment grew in the first recession period and fell later. In the second recession period, nondurable manufacturing employment started to fall before the recession occurred. In the third recession period, the fall in Nebraska nondurable employment was coincident with the fall in the national economy. Nebraska lost 10.3 percent of its nondurable manufacturing jobs, a drop of almost 5,000 jobs from peak to trough. Although this number is cause for concern, it was not as large as the drop in durable manufacturing.

There is a lack of recovery in 1983 for nondurable manufacturing. Approximately 60 percent of Nebraska's nondurable manufacturing employment is in the food manufacturing business. 1983 was a bad year for agriculture generally. The impact of the agricultural sector likely retarded recovery in nondurable manufacturing.

Figure 1
Nebraska Employment-Durable Manufacturing
(Number of Jobs, by Year and Quarter)

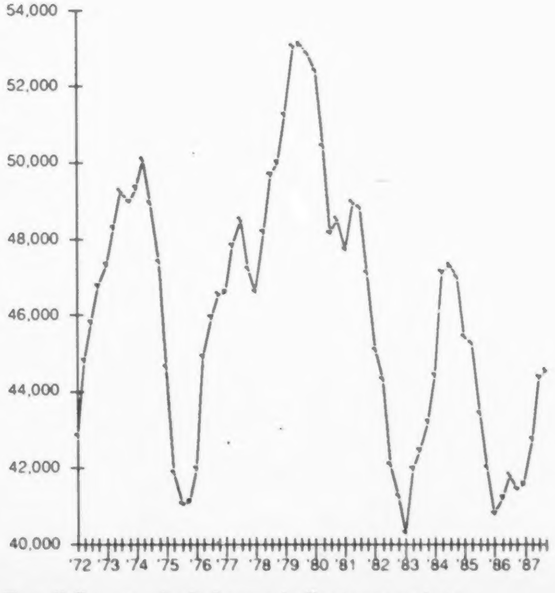
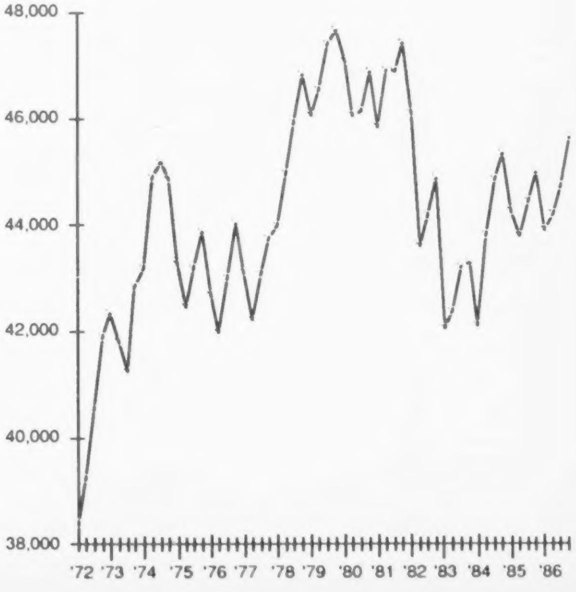


Figure 2
Nebraska Employment-Nondurable Manufacturing
(Number of Jobs, by Year and Quarter)



For all figures, shaded areas indicate recessions

Retail employment (Figure 3) (we are not looking at the dollar volume of retail sales) is another example of Pattern II. There was growth in retail employment in the first recession period, probably a carryover from the good agricultural year of 1973. There was a fall in employment at the end of this recession period.

There was a seasonal dip before the 1980 downturn, but employment generally stayed flat and somewhat below 1979 levels. The third recession showed a clearer pattern in retail employment.

Other members of the Pattern II group are construction; transportation, communication, and utilities (TCU); and wholesale trade. TCU ran in its own cycle. The downturns shown in the 1980s were probably a result of prolonged railroad employment cuts related to a reorganization of the industry, not a result of business cycle influences.

After the downturn in the third recession period, wholesale trade employment stagnated until 1987. At this point, wholesale trade employment shot upward. It is not clear why this occurred. Nebraska somehow became a much more attractive state for wholesale trade industry.

Patterns and Employment Sectors

Pattern I

Durable Manufacturing

Pattern II

Nondurable Manufacturing, Construction, Retail Trade, TCU, Wholesale Trade

Pattern III

Services, FIRE

Pattern III

Perhaps one of the best examples of Pattern III is the service sector. Service employment (Figure 4) sailed through the recessions virtually unscathed. Growth rates may have fallen, but there was still positive growth during these time periods. Although the growth curves were somewhat flattened, annual figures for service employment continued to grow throughout the recession periods. Such stability in employment is refreshing, especially as the service sector is a fairly large employer. It is not clear that we can weather the next recession without a dampening of service employment. The service sector in Nebraska is becoming a more mature industry. In 1989 total employment was 36 percent above 1982 levels. As the industry matures, it is possible that service employment may become more vulnerable to future business cycles.

The other sector that shares Pattern III is the finance, insurance, and real estate sector. The story is similar to that of the service sector. There was flatness during the third recession period, but clear growth in the other recession periods.

Notably missing from the discussion of recession effects is employment by government, both federal government employment and state and local

Figure 3
Nebraska Employment-Retail Trade
(Number of Jobs, by Year and Quarter)

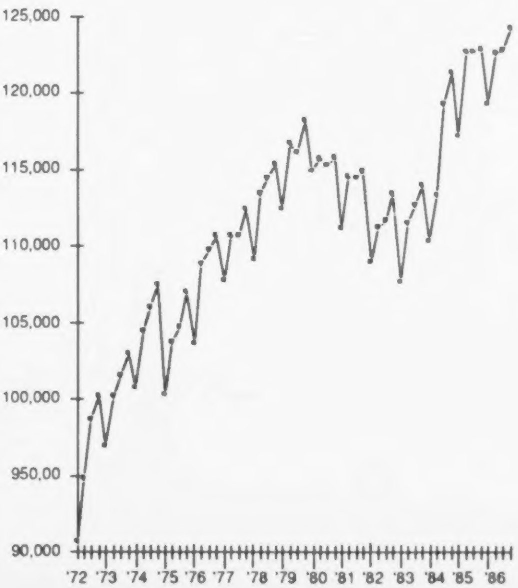
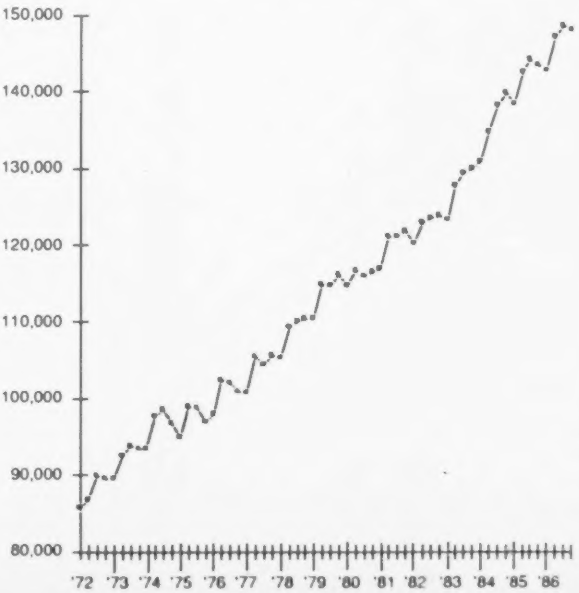


Figure 4
Nebraska Employment-Services
(Number of Jobs, by Year and Quarter)



government employment. These sectors have their own cycle, with no clear pattern related to recessions. One example is the peak in federal government employment in our state in the second quarter of this year—this employment peak was due to an increase in census workers.

Agricultural Sector

The employment concept does not work as an analytical tool in the agricultural sector. Instead, we look at net farm income. The definition of net farm income is this year's receipts minus this year's expenditures plus government transfers. We would like to look at real net farm income, but it is difficult to determine a proper deflator for this sector. If we look at net farm income as a family income concept, then perhaps the Consumer Price Index is appropriate. If we look at net farm income as a business income concept, however, it is not clear that the CPI applies.

As we can see in Figure 5, 1973 was an outstanding year for net farm income. 1983, on the other hand, was a poor year for agriculture. We also see that the volatility in net farm income is extreme. For example, there is a spike from the first to the second quarter of 1986 of 294 percent.

Unfortunately the net farm income series is a low quality data series. Net farm income is a residual calculation; the data depend upon allocation schemes used by the U.S. Bureau of Economic Analysis.

Figure 5 shows that farm income runs in its own cycle, one that is not related to national recessions.

Personal Income

An overall picture of the impacts of recessions on the Nebraska economy is shown by Nebraska's real personal income (NPI) (Figure 6). This data series follows Pattern I. In addition, there are unique aspects to NPI. In 1983 there was a lag in the recovery related to the downturn in the farm sector. While the national economy troughed in November 1982, Nebraska's personal income troughed nearly a year later in the third quarter of 1983.

Summary

Nebraska is not recession proof. The impacts of a national recession differ by sector. Some sectors have emerged unharmed from national recessions in the past. Durable manufacturing, however, is especially vulnerable.

The forecast for the forthcoming national recession is for a short and shallow downturn. If the future follows that scenario, it is possible that Nebraska could escape any ill effects. Nebraska has its own problems, nevertheless; 1991 is expected to be a poor agricultural year. Farm income for our state may dip 15 percent to 20 percent below 1990 levels due to increases in the cost of oil-related products, to a lessening of government payments, and to low crop prices.

If the forthcoming recession proves to be long and deep, then there is no guarantee that past patterns will hold. At best, past patterns can be a guide to what may happen in Nebraska's future. The good luck that we experienced in the service and finance, insurance, and real estate sectors may change, as these industries are more mature than they were in previous recessions. Nebraska businesses are well advised to consider the impacts of recessions on their businesses when making plans for the next year.

Figure 5
Nebraska Farm Proprietors' Income
($ Thousands, Current Dollars, by Year and Quarter)

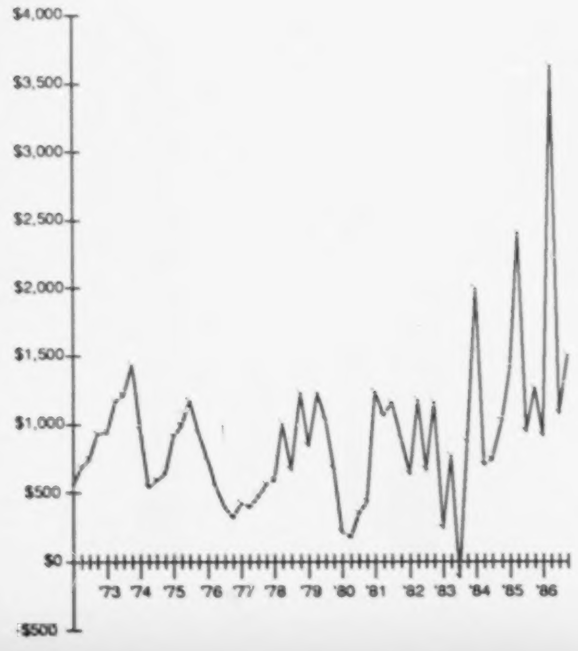
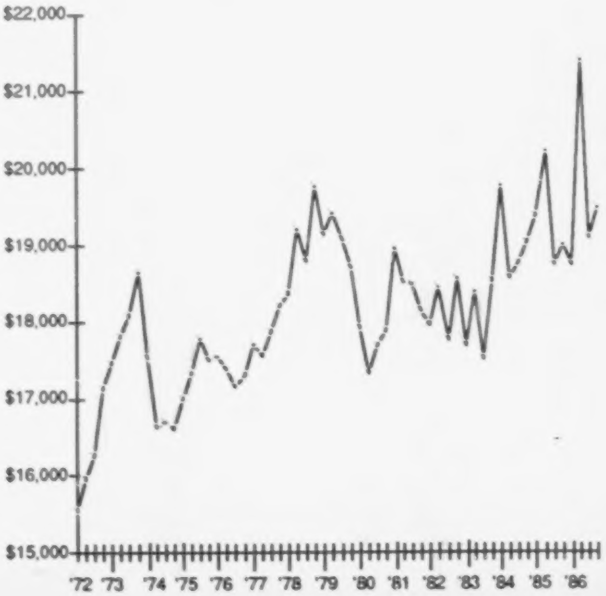


Figure 6
Nebraska Real Total Personal Income
($ Thousands, 1982-1984 Dollars, by Year and Quarter)



Projected Per Capita Income for Midwest MSAs

F. Charles Lamphear

Director of the Bureau of Business Research and Nelson Professor of Economics

Table 1 shows that the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce expects only slight movements in the ranking of the MSAs within an eight state area that includes Nebraska. Lincoln, one of Nebraska's two MSAs, is expected to move from 15th position in 1988 to 13th position by 2000. Omaha's position is expected to remain unchanged. The Davenport-Rock Island-Moline MSA is expected to experience the greatest change in rank, moving from 14th position in 1988 to 19th position by 2000.

BEA projects that in the year 2000, per capita income for the nation will be $15,345 (in 1982 dollars). The per capita income projection for Cedar Rapids, Iowa matches the national average. In the year 2000, Cedar Rapids is projected to rank 100th in the nation in per capita personal income. Any MSA ranked below Cedar Rapids is expected to experience a per capita income level below the national average.

An article that appeared in the October issue of the *Survey of Current Business*,

Table 1
Per Capita Income Estimates and Projections for MSAs in Nebraska and Nearby States
(1982 dollars)

	1988		2000		
Metropolitan Statistical Area	Area Amount	Area Rank	Area Amount	Area Rank	U.S. Rank
Colorado					
Boulder-Longmont	$15,274	1	$17,691	1	31
Colorado Springs	12,421	12	14,627	14	136
Denver	14,583	2	16,661	3	55
Fort Collins-Loveland	11,919	19	13,848	21	170
Greeley	10,680	27	12,590	28	247
Pueblo	9,755	31	11,683	31	288
Iowa					
Cedar Rapids	13,150	9	15,346	8	100
Davenport, Rock Island-Moline (IA-IL)	12,215	14	14,129	19	157
Des Moines	13,780	4	15,972	4	68
Dubuque	10,844	26	12,769	26	237
Iowa City	13,302	7	15,336	9	101
Sioux City, IA-NE	11,519	22	13,916	20	164
Waterloo-Cedar Falls	11,390	24	13,681	23	174
Kansas					
Lawrence	10,426	29	12,762	27	239
Topeka	13,513	6	15,944	5	70
Wichita	13,226	8	15,814	7	79
Missouri					
Columbia	12,495	11	15,105	11	115
Joplin	10,078	30	12,230	30	265
Kansas City, MO-KS	13,718	5	15,830	6	76
St. Joseph	11,309	25	13,610	24	180
St. Louis, MO-IL	14,302	3	16,686	2	53
Springfield	11,567	21	13,796	22	172
Nebraska					
Lincoln	12,111	15	14,938	13	121
Omaha, NE-IA	12,749	10	15,247	10	106
Oklahoma					
Enid	12,023	18	14,434	16	144
Lawton	9,173	32	10,945	32	305
Oklahoma City	11,737	20	14,209	17	153
Tulsa	12,108	16	14,469	15	142
South Dakota					
Rapid City	10,583	28	12,444	29	255
Sioux Falls	12,277	13	14,976	12	119
Wyoming					
Casper	12,087	17	14,146	18	156
Cheyenne	11,518	23	13,519	25	190

Source: Bureau of Economic Analysis

published by BEA, contained BEA's latest estimates of per capita personal income for 1988 for the nation's 319 metropolitan statistical areas (MSAs). The article also included BEA's projections of per capita income to the year 2000 for the 319 MSAs. The geographic definition of each MSA was held constant for comparison purposes for the projection period.

Table 1 presents per capita income figures for Nebraska's MSAs and for the MSAs located in seven nearby states. A total of 32 MSAs are located in the eight state area. The per capita income figures presented in Table 1 are in constant dollar terms for 1982.

Table 1 also includes MSA rankings on the basis of the 32 MSAs in the eight state area and, also, on the basis of the 319 MSAs in the nation.

A MSA is defined in terms of entire counties, except in New England where MSAs are formed on the basis of cities and towns. The general concept of a MSA is one of a large population nucleus with adjacent communities that have a high degree of social and economic integration with the nucleus.

Announcing Nebraska County Profiles

This handy reference set, prepared by the Bureau of Business Research, University of Nebraska-Lincoln, contains facts and figures about agriculture, population, income, retail sales, employment, education, medical services, and recreation areas for every county in the state. A state profile is also available.

To obtain Nebraska *County Profiles*, note the number of copies in the blank next to the counties that you wish to order and send this form with a check or money order to the Bureau of Business Research, University of Nebraska-Lincoln, 200 CBA, Lincoln, NE 68588-0406.

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Construction Activity: 1991 Projections

The F.W. Dodge projections of building activity indicate that the 1991 total dollar value of all construction activity will be about $241 billion for the year, 10 percent below the 1989 peak of $268 billion. F.W. Dodge has estimated the total value of construction activity for 1990 at slightly over $245 billion. The 1991 projection indicates further decline from the 1989 peak year.

Figure 1
Building Forecast by Region
Percent Change 1990 to 1991

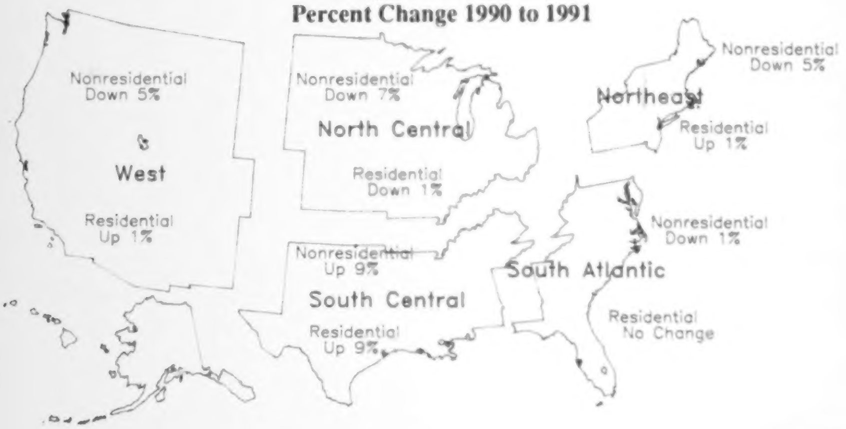


Figure 1 shows projected percentage changes (1991 projections over 1990 estimates) by region for nonresidential and residential building activity. At the regional level, the bright spot is the South Central region. For that region, both nonresidential and residential construction are expected to increase 9 percent over 1990 levels. The weakest region for construction activity appears to be the North Central region, where nonresidential building activity is expected to drop 7 percent and residential building is projected to fall 1 percent from 1990 levels.

Source: McGraw-Hill, Inc., F.W. Dodge Division, 1221 Avenue of the Americas, New York, N.Y. 10020

David DeFruiter

Change in Unemployment Rate by State

Unemployment rates were higher in September than a year earlier in 30 states and the District of Columbia, according to a recent report by the Bureau of Labor Statistics of the U.S. Department of Labor.

The national unemployment rate for all civilian workers, not seasonally adjusted, was up 0.4 percentage point, from 5.1 percent in September 1989 to 5.5 percent in September 1990.

Figure 1 shows the September 1989-to-September 1990 change in the unemployment rate for the 50 states. Year-to-year changes are being used, as the data for individual states are not seasonally adjusted. Monthly changes, unadjusted for seasonal changes, could paint a misleading picture of underlying economic trends.

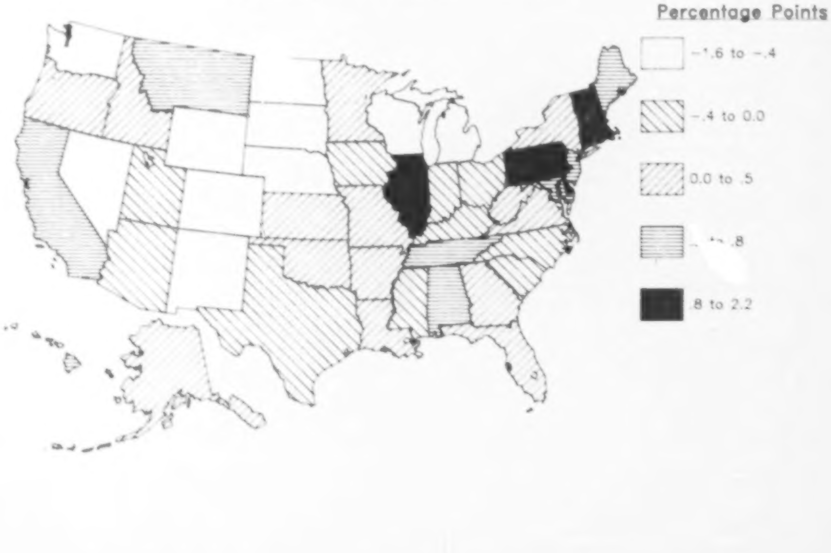
Eight states and the District of Columbia reported yearly increases in their unemployment rate of 0.8 percentage point or more. The largest increases were in Delaware (2.2 percent), Massachusetts (1.9 percent), the District of Columbia (1.8 percent), and Rhode Island (1.7 percent). Seven of the eight states are located in the Middle Atlantic and New England regions.

States with declines in their unemployment rates were concentrated in the Great Plains and Rocky Mountain areas. Washington and Wyoming were the only two states with declines in their rates of more than 1 percentage point (Figure 1).

Eight states had September unemployment rates below 4 percent. The lowest were Nebraska (2.1 percent), Hawaii (2.8 percent), North Carolina (3.3 percent), and North Dakota and South Dakota (both 3.4 percent). At the upper end, four states had unemployment rates of 7 percent or more. West Virginia was the highest (9.0 percent), followed by Alabama (7.5 percent), Mississippi (7.1 percent), and Louisiana (7.0 percent).

David DeFruiter

Figure 1
Change in Unemployment Rate
September 1989 to September 1990



Review and Outlook

John S. Austin, Research Associate, UNL Bureau of Business Research

National Outlook

According to most prominent business economists, the economy currently is poised on the brink of a recession. Many are arguing over whether the recession already has started.

Three-fourths of the 51 economists surveyed by the National Association of Business Economists (NABE) say that we are in a recession. The NABE consensus forecast calls for a decrease in the current quarter of 1.0 percent in real Gross National Product (GNP) and -0.8 percent in the first quarter of 1990. Even Alan Greenspan, the current chairman of the Federal Reserve Board and a former NABE president, acknowledges that GNP is likely to fall.

One of the things that is fundamentally different about this recession versus previous recessions is that both the private sector and the public sector are carrying an extremely high debt load. In the private sector, we have seen a growth in the 1980s of so-called junk bonds. In the public sector, we have seen a substantial increase in the federal debt brought by recurring large federal deficits. The impact of a recession with a debt-loaded economy is unclear. If a short shallow recession comes, there may not be much of an impact upon either the public or the private sectors. If the recession lengthens and becomes deeper, however, then corporations heavily indebted with junk bonds may have difficulties in making their bond payment. Such an event may call for some reorganization in the corporation world.

If the consensus short and shallow recession comes, Nebraska could make it through in fairly good shape. It is possible that Nebraska may not show a net downturn. But if the forthcoming recession proves to be long and deep, then it will be a different story. Nebraska likely will suffer with the rest of the nation.

The Consumption Sector

The consumer will be in the driver's seat for this recession. There are three major factors that are important to the consumer sector.

Number one is consumer confidence. Consumer confidence, according to a University of Michigan survey, fell again in October. This was the third month of decline, with a net decrease of 24.3 points from the July figure of 88.2 points. Consumers are negative about government economic policies, about their plans to buy new homes, about their plans to purchase consumer durables, about unemployment considerations, about inflation, and about the economy as a whole. According to a survey conducted by the Conference Board, consumer confidence fell again in November.

Given the state of consumer confidence, it will be difficult to see much of a recovery in the consumption sector--an important consideration because consumption accounts for two-thirds of total national spending.

Another major issue in the consumption sector is inflation. In the last three months, higher gasoline prices have meant that the consumer has had to use money normally spent on other items on gasoline. As a result, nongasoline purchases have suffered.

Although consumer spending advanced 0.9 percent in September, there was no increase in October. After removing the effects of inflation, real consumer spending fell 0.7 percent. Current dollar personal income advanced only 0.1 percent in October. Disposable income after inflation slipped 0.5 percent in October.

The third major item in the consumption sector is Thanksgiving weekend sales. Nationwide, retailers acknowledged widespread discounting in order to attract customers to their stores. Retailers characterized the price situation as being competitive. As a whole, the Thanksgiving weekend results were mixed. Given the usual optimism of retailers, perhaps we should interpret this as meaning retail sales were poor.

Thus, we must be somewhat pessimistic about the current state of the consumption sector. It is likely that when the fourth quarter GNP results are reported we will see a substantial decline in this sector. Given that likely decline, it will be difficult to maintain a positive growth rate in real GNP.

Other Economic News

Industrial production in October fell 0.8 percent. Despite this drop, the employment rate was maintained at the

Table 1
National Indicators

	Annual		Quarterly (SAAR)				
	1988	1989	1989:III	1989:IV	1990:I	1990:II	1990:III
Real GNP (% change)	4.5	2.5	1.7	0.3	1.7	0.4	1.7
Real Consumption (% change)	3.6	1.9	4.6	-0.8	1.1	0.2	3.2
Housing Starts (millions)	1.5	1.3	1.3	1.3	1.4	1.2	1.1
Auto Sales (millions)	10.6	9.9	10.8	8.7	9.7	9.5	9.7
Interest Rate (90 day T-bill)	6.7	8.1	7.8	7.6	7.8	7.8	7.5
Unemployment Rate (%)	5.5	5.3	5.3	5.3	5.3	5.3	5.6
Money Supply, M2 (% change)	5.1	3.7	7.0	7.1	6.4	3.2	3.1
Industrial Production Index (1987=100)	105.4	108.1	108.1	108.1	108.3	109.4	110.5

NOTE: SAAR—seasonally adjusted at annual rates
Source: Bureau of Economic Analysis

5.7 percent level recorded in September. Both of those figures contrast with the 5.3 percent unemployment rate that characterized the early part of this year. Retail sales in October advanced 0.1 percent from September. Taking gasoline purchases from this figure left a net decrease of 0.1 percent. These figures contrasted sharply to the 1.3 percent September level. General merchandise stores are having difficulties. General merchandise stores decreased 0.6 percent in October, following a fall of 1.1 percent in September. General merchandise stores rely heavily on Christmas sales.

The Consumer Price Index (CPI) advanced 0.6 percent in October, following a 0.8 percent advance in September and August. For these three months, the CPI advanced 8.9 percent at annual rates versus 4.6 percent for all of 1989.

When food and energy prices are removed from the October figure, the CPI advanced 0.3 percent. Contributing to the increases in the CPI in October was a jump in gasoline prices of 7.7 percent. Fuel oil itself advanced 12.8 percent. For the three month period, gasoline prices advanced 26.9 percent. On a year-to-date basis, gasoline prices increased 36.9 percent.

Housing starts in October were down 6 percent from September. That brings them to the lowest level since June 1982.

The Big Three auto producers are idling 14 plants in the United States and Canada. Meanwhile, Toyota plans to double the Georgetown, Kentucky, plant by 1993. That will bring the total of expansions or new plants by the so-called transplant Japanese producers in the United States to ten.

The GNP growth rate for the third quarter was revised marginally from 1.8 percent to 1.7 percent.

Nebraska Outlook

Overall, the construction sector in Nebraska continued to do well. Housing starts in Nebraska, however, decreased for the second month in a row. February, April, September, and October all showed decreases in housing starts. On a year-to-date basis, housing starts advanced 7 percent versus a year ago. In October there was some weakness in totals due to building construction. Residential and nonresidential construction figures were lower than a year ago. On a year-to-date basis, however, they were still ahead of a 1989 figures. Nonbuilding construction area is hot in Nebraska, showing a 45 percent increase in value on a year-to-date basis. Most of the strength is in street and highway construction. This category accounts for nearly one-half of total nonbuilding construction. Work in the category now has reached a seasonal slowdown.

To contrast Nebraska's construction to U.S. construction, consider the following.

Year-to-Date Contract Values

	U.S.	Nebraska
Nonresidential	-12%	+9%
Residential	-12%	+9%
Nonbuilding	-3%	+45%
Total	-10%	+17%

Source: F.W. Dodge Reports

The agricultural sector continues to do well in Nebraska. The harvest levels were good and were in line with previous outputs. Grain prices were weak. Corn prices were a little over $2 per bushel in mid-November. Livestock, on the other hand, is doing well, with most prices ahead of year ago values.

Retail sales in Nebraska have slipped. In August, retail sales for the state were down 1.6 percent versus year ago levels. On a year-to-date basis, retail sales remain 5.3 percent ahead of year ago levels. A large part of the decrease came from a fall in motor vehicle retail sales. It is important not to make too much of a decrease in one month's data. If this figure is reinforced by two or three more months of downturns, then perhaps we can say a trend has begun.

Table II
Employment in Nebraska

	Revised September 1990	Preliminary October 1990	October % Change vs. Year Ago
Place of Work			
Nonfarm	728,895	734,838	2.7
Manufacturing	97,492	98,282	2.4
Durables	46,779	46,826	0.9
Nondurables	50,713	51,456	3.8
Mining	1,653	1,604	3.0
Construction	26,146	26,091	4.4
TCU*	47,113	47,341	2.7
Trade	185,587	186,853	1.1
Wholesale	54,947	55,372	2.1
Retail	130,640	131,481	0.6
FIRE**	47,879	47,804	-1.0
Services	175,308	176,212	3.6
Government	147,717	150,651	4.9
Place of Residence			
Civilian Labor Force	824,583	836,206	1.4
Unemployment Rate	2.1%	2.0%	

* Transportation, Communication, and Utilities
**Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table III
Price Indices

	October 1990	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	133.5	6.3	5.2
Commodities	126.1	6.8	4.9
Services	141.7	6.0	5.5
Producer Price Index (1982 = 100)			
Finished Goods	122.3	6.4	4.6
Intermediate Materials	117.8	4.9	1.7
Crude Materials	124.6	22.0	4.9
Ag Index of Prices Received (1977 = 100)			
Nebraska	156	2.6	3.5
Crops	107	-14.4	-8.0
Livestock	187	10.7	9.1
United States	147	1.4	2.9
Crops	121	-5.5	-4.1
Livestock	171	5.6	8.5

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

More Hold College Degrees and Earn Higher Incomes

The U.S. Department of Commerce, Bureau of Census, reports that in 1987 about 23 percent of the nation's adult population held degrees beyond the high school level. This is a 2 percent increase from 1984. Meanwhile, the number of adults who had not completed high school dropped from 26 percent to 23 percent.

The report shows that the highest average monthly incomes were received by those with professional degrees ($4,323), followed by those with master's degrees ($2,776), bachelor's degrees ($2,109), and associate degree holders ($1,630). Average monthly income received by those with less than a four year college level education include some college but no degree ($1,283), high school graduate only ($1,135), and non-high school graduate ($761).

Merlin W. Erickson

Gasoline Taxes

According to the Transportation Planning Division, Nebraska Department of Roads, the total gas tax rate is 21.4 cents per gallon in this state. Nebraska ranks sixth in the nation, behind Illinois, Connecticut, Washington, North Carolina, and Wisconsin who had higher gasoline taxes per gallon.

Among the 50 states, Alaska had the lowest total gas tax rate (8 cents per gallon), and Illinois had the highest rate (24 cents per gallon). All of these rates were in effect October 1, 1990.

Merlin W. Erickson

Holiday Greetings

The entire staff at the Bureau of Business Research extends Holiday Greetings to our readers of *Business in Nebraska*. We wish each of you a happy and successful New Year.

Table IV
City Business Indicators
August 1990 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	3.0	2.2
Alliance	1.5	537.0
Beatrice	1.6	58.4
Bellevue	1.5	-29.9
Blair	1.5	-15.4
Broken Bow	0.0	1,039.7
Chadron	11.6	-60.5
Columbus	4.4	-10.8
Fairbury	-0.6	311.0
Falls City	5.4	38.7
Fremont	5.3	-37.9
Grand Island	4.0	6.4
Hastings	4.3	64.8
Holdrege	0.5	147.9
Kearney	3.7	4.0
Lexington	6.0	-61.4
Lincoln	2.7	-1.0
McCook	0.9	-29.2
Nebraska City	-3.2	-68.4
Norfolk	7.6	-37.8
North Platte	8.2	20.1
Ogallala	7.0	43.3
Omaha	1.5	14.9
Scottsbluff/Gering	2.2	5.2
Seward	4.1	298.7
Sidney	3.0	-30.3
South Sioux City	-1.1	-50.4
York	7.5	105.6

(1)As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2)Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

Figure I
City Business Index
August 1990 Percent Change from Year Ago

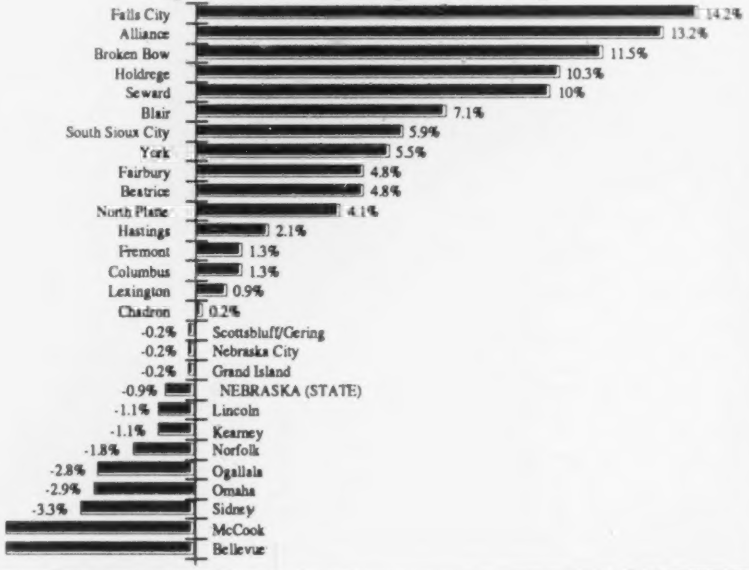
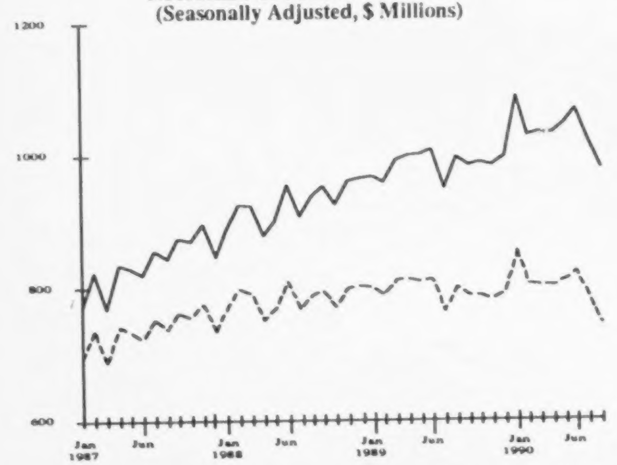


Table V
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)	City Sales (2) August 1990 (000s)	City Sales (2) % Change vs. Year Ago	Region Sales (2) August 1990 (000s)	Region Sales (2) % Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA	$882,000	-0.3	$1,019,165	-1.6	5.3
1 Omaha	302,526	-4.8	375,568	-6.1	2.6
Bellevue	11,969	-5.0	*	*	*
Blair	5,062	22.3	*	*	*
2 Lincoln	121,960	-0.2	141,411	-1.9	5.3
3 South Sioux City	6,776	28.3	9,030	21.5	29.1
4 Nebraska City	4,256	21.3	19,400	6.7	9.2
6 Fremont	17,177	8.2	30,915	4.1	8.4
West Point	2,868	4.6	*	*	*
7 Falls City	2,303	29.5	9,205	9.1	7.6
8 Seward	4,622	8.9	15,571	8.4	8.4
9 York	6,568	2.1	15,045	-2.2	3.0
10 Columbus	15,289	5.1	26,568	0.8	6.9
11 Norfolk	18,627	-1.5	34,004	2.4	6.4
Wayne	3,056	19.2	*	*	*
12 Grand Island	34,671	-0.2	48,536	-1.8	2.5
13 Hastings	16,136	0.1	25,059	-3.3	2.5
14 Beatrice	7,557	9.7	18,010	7.5	12.1
Fairbury	2,638	1.0	*	*	*
15 Kearney	21,093	-1.7	29,588	-1.7	4.5
16 Lexington	6,075	11.9	16,758	2.4	4.9
17 Holdrege	5,078	18.7	8,869	3.2	7.0
18 North Platte	17,731	4.3	22,276	1.8	7.4
19 Ogallala	6,144	-12.8	11,979	-8.4	3.1
20 McCook	7,610	-4.6	11,096	-4.7	6.7
21 Sidney	3,926	-1.5	7,812	-2.1	4.1
Kimball	1,777	5.6	*	*	*
22 Scottsbluff/Gering	18,396	1.8	25,794	1.2	4.7
23 Alliance	5,336	13.6	14,137	-3.3	3.4
Chadron	2,696	4.2	*	*	*
24 O'Neill	4,019	-4.3	14,473	-0.4	7.4
Valentine	2,959	6.7	*	*	*
25 Hartington	1,302	1.8	8,543	5.3	7.1
26 Broken Bow	3,480	4.6	11,971	-2.5	2.9

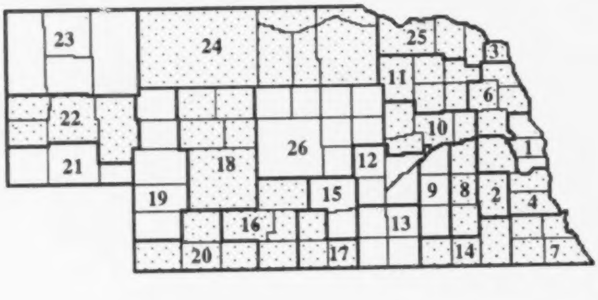
(1)See region map
(2)Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales
*Within an already designated region
Compiled from data provided by the Nebraska Department of Revenue

Figure II
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure III
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

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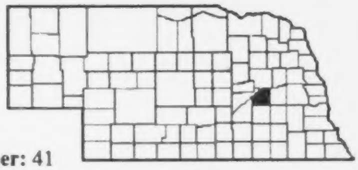
County of the Month

Polk

Osceola--County Seat



License plate prefix number: 41
Size of county: 434 square miles, ranks 84th in the state
Population: 5,900 (estimated) in 1988, a change of -6.3 percent from 1980
Median age: 35.4 years in Polk County, 29.7 years in Nebraska in 1980
Per capita personal income: $15,040 in 1988, ranks 27th in the state
Net taxable retail sales ($000): $31,083 in 1989, a change of +3.3 percent from 1988; $21,768 from January through August 1990, a change of +5.2 percent from the same period one year ago
Number of business and service establishments: 150 in 1988; 69 percent had less than five employees
Unemployment rate: 3.0 percent in Polk County, 3.1 percent in Nebraska for 1989
Nonfarm employment (1989):

	State	Polk County
Wage & salary workers	705,672	1,391
	(percent of total)	
Manufacturing	13.4%	3.4%
Construction and Mining	3.6	2.4
TCU	6.5	5.7
Retail Trade	18.5	15.1
Wholesale Trade	7.6	8.8
FIRE	6.8	5.8
Services	23.7	21.4
Government	19.9	37.4
Total	100.0%	100.0%

Agriculture:

Number of farms: 736 in 1987, 727 in 1982
Average farm size: 360 acres in 1987
Market value of farm products sold: $99.4 million in 1987 ($135,005 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Business in Nebraska

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Association for University Business & Economic Research

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Business in Nebraska

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Rural Economic Revitalization: Part I
Small Business-Based Networks

F. Charles Lamphear
Director and Nelson Professor of Economics

Considerable attention will be given to economic development issues during the early part of 1991 by our state's legislative and executive leaders. Particular emphasis likely will focus on rural economic revitalization. This article inaugurates a series on rural economic development. The series begins with a background review of rural economic development and a proposal for one specific option for rural economic revitalization–the formation of small business-based networks.

Issues in Rural Economic Revitalization

The business of economic development is an ongoing activity for any state or region, because economic development is a competitive business. Directly and indirectly, our nation's regions constantly are competing for business and industry.

Economic development is a competitive business that demands constant attention.

Capital and labor (people) flow to regions that are successful competitors. In contrast, resources flow from the regions that end on the losing side of this competitive game. Regional economic competition becomes more intense when a nation's population and economic growth rates are decreasing. At present, the U.S. is experiencing slowdowns in both population and economic growth.

According to preliminary reports from the U.S. Bureau of Census, 83 of Nebraska's 93 counties lost population during the last decade. These 83 counties have one basic factor in common–they tend to be rural counties. In recent years, the nation's rural counties generally have been the losers in the competitive game for business and industry.

Rural economic revitalization, no doubt, will be a major policy issue this year in Nebraska, as it should be. Rural economic revitalization is not only important to rural areas, it also is important to urban centers. Rural revitalization can produce significant economic benefits for all areas of Nebraska.

What options for economic revitalization are available to Nebraska's rural areas? There are several. One will be presented here. Others will be presented in later issues of *Business in Nebraska*.

No one option can produce total rural economic revitalization. At best, any approach only offers a potential for some revitalization. Therefore, several options need to be implemented simultaneously.

One option, based on the presence of a special infrastructure called public entrepreneurship, is the formation of enterprise networks, sometimes called federations of companies. Potentially, enterprise networks have a distinct advantage over independent businesses. Through collaborative business efforts, enterprise networks are better able to meet the challenges of constant changes in markets and technologies.

The notion of enterprise networks will be discussed more fully later in the context of rural revitalization and small businesses.

A common measure of economic revitalization is job growth. The number of nonfarm wage and salary jobs in Nebraska rose substantially during the later years of the 1980s. From 1985 through 1989, annual job growth averaged 2.1 percent. This annual rate produced approximately 55,000 new jobs for Nebraskans during the period.

Almost half of the 55,000 jobs that were added occurred in services–25,000 additional service jobs, to be exact. Because the service sector basically is people oriented, most of the job growth in services occurred in Nebraska's few urban counties.

Approximately 8,000 additional jobs were added to the manufacturing sector from 1985 to 1989. A significant number of these new jobs occurred in the state's rural counties. What is most important about Nebraska's recent job growth is not the geographic distribution of that growth, but the economic momentum job growth has produced in the state. In short, Nebraska's recent job growth has set the stage for the state to move to a phase II of economic development.

A key player in a second phase of economic development will be small businesses, especially small businesses located in our rural areas. According to a recent Dunn and Bradstreet report, about 67,000 businesses are operating in Nebraska. These businesses vary in size from one employee to nearly 10,000 employees. Slightly over 80 percent of Nebraska's businesses employ less than 20 workers.

Nebraska clearly is a small business state. The small business nature of Nebraska especially is significant for the state's rural counties. Rural revitalization means small business growth.

Can our rural small businesses successfully compete in an economic world characterized by major shifts in technology and markets? There is good reason to believe they can. In significant ways, recent world changes in technology and markets are shifting economic opportunities from big companies to small businesses. Current changes in technology and markets are directing emphasis away from size and toward industrial organization. Let's call this phenomenon *the new age of economic competition and cooperation.*

Current world changes in technology and markets are directing emphasis away from size to industrial organization.

Several factors have led to the formation of this new age of competition and cooperation. One factor is market saturation. Increasing numbers of low cost, mass-produced products and services have become available. For many of these items, supply has outstripped demand, resulting in surpluses.

Moreover, rising incomes have shifted tastes from mass-produced goods and services to customized products and services. Customization requires the utilization of more flexible technologies. In the new emerging world of competition, competitive advantage will require the ability of businesses to get innovations off the drawing board and on the street quickly.

Businesses must capture incremental cost efficiencies, improve quality, and create new applications in the process of making the product, delivering the service, and interacting with the customer.

Small Business-Based Networking

The need to reduce the amount of time from product concept and design to customer purchase likely will promote rapid expansion in this new kind of organization called enterprise networks. Enterprise networks are federations that combine the virtues of several businesses into a network of collaborative ventures. The formation of enterprise networks may be especially beneficial to small businesses.

Robert Howard, an associate editor for *Harvard Business Review* (HBR), noted in a recent issue that "... it's not the size of a company that matters so much as the quality of the business relationships tying companies to each other." Howard further noted that "... the key unit of production is no longer the individual company, but a decentralized network of companies."

Business networks are not new. Business networks have been in existence for some time in several industrialized countries, including the U.S. Examples include Japan's supplier-group system that ties large final assemblers to small suppliers in long-term relationships of collaboration; Europe's industrial districts that involve networks of highly specialized small companies that combine state-of-the-art technology with skilled labor to produce high value-added products; and, closer to home, California's Silicon Valley that contains numerous businesses that have formed complex alliances and cooperative relationships to remain competitive.

The success of business networks indicates four important lessons for rural areas to consider:

- Networks offer a new kind of competitive advantage that is not limited to any particular economic region, such as urban areas;
- Networks offer the federation of companies important economies and benefits that may not be available to individual companies, particularly if the companies are small businesses;
- Networks can create positive tension between cooperation and competition, where companies compete to join the most successful and most profitable networks; and
- Small business networks located in rural areas can compete globally, even in state-of-the-art technology niches.

Unfortunately, there is a possible down side (i.e., risk) associated with business networks. One risk involves power positioning. This risk, however, can be controlled. If a network includes both big and small businesses, the big partners may dominate the small partners. Big companies can take advantage of weaker, smaller companies–for example, by forcing small suppliers to bear the costs of downturns. The likelihood of power positioning within a federation of companies can be sizeable, particularly if the federation consists of big and small companies.

A solution is the creation of a federation of equally sized businesses. An example of a successful network of nearly equally sized, small companies is an Italian federation that produces robotics for global distribution. The network's center or lead company employs 16 workers. The lead company handles systems design, assembly and testing, and the global marketing of the final robotics. Five other local companies supply the electronic controls, machining, hydraulic components, welding, and fabrication. None of the firms has over 20 employees.

From labor's standpoint, an additional possible disadvantage of networks is reduced job security. Loosely formed federations that have not established long-term relationships could cause job insecurity. Job insecurity more likely relates to changes in a product's life cycle and production technologies, however, than to the formation of business networks. In fact, it is conceivable that business federations or networks could stabilize, rather than destabilize, job security. The relationship between job security and the dynamics of the market place will be a topic for a later issue.

The key unit of production is no longer the individual company, but a decentralized network of companies.

In summary, the formation of small business-based federations or networks is one option available to rural areas for economic revitalization. But these networks will not form automatically. The state first must develop an infrastructure of public entrepreneurship.

In the new emerging world of competition where greater importance will be given to industrial organization rather than to firm size, an infrastructure of public entrepreneurship will be as important as today's highways or telecommunications systems are for economic development.

Most of the components necessary to build an infrastructure of public entrepreneurship already exist in the state. They simply need to be interrelated in a manner that will stimulate the formation of businesses networks.

An article titled "A Model of New Nebraska Industry," which appeared in the February 1989 issue of Business in Nebraska, lists a number of existing government and educational activities that could form the basis of this special infrastructure.

Consumer Price Index— Escalator Provisions

The Consumer Price Index (CPI) is the most commonly accepted measure of inflation in the U.S.; therefore, it is used widely to adjust payments affected by general price changes in the marketplace. The U.S. Department of Labor, Bureau of Labor Statistics (BLS) recently surveyed CPI users and found that over 75 percent employ the CPI to adjust payments.

Some of the most common uses of the CPI in the private sector involve long-term rental contracts, collective bargaining agreements, alimony payments, and insurance policies with automatic inflation protection. In the public sector, Social Security benefits are tied to the CPI, as is the food stamp program of the U.S. Department of Agriculture. Retirement benefits for the military and federal civil service employees are based on the CPI.

BLS recently released a report that provides a guide on how to use the CPI for calculating cost adjustments due to price increases. A personal copy of this guide, entitled *Using the Consumer Price Index for Escalation*, Report 761, may be obtained by contacting the U.S. Department of Labor Bureau of Labor Statistics, Washington D.C. 20212.

Merlin W. Erickson

Nation's Home Ownership Rate Down From 1980

The U.S. home ownership rate declined from 66 percent in 1980 to 64 percent in 1989, according to a report released by the Commerce Department's Bureau of the Census. Home ownership rate is the percent of total occupants who own their home. Total occupancy consists of owners and renters.

Rates in the Northeast and West were consistently lower than the national rate over the decade. The Northeast was the only region with a higher home ownership rate in 1989 than in 1980.

Rates among states in 1989 ranged from 52 percent in New York to nearly 75 percent in West Virginia.

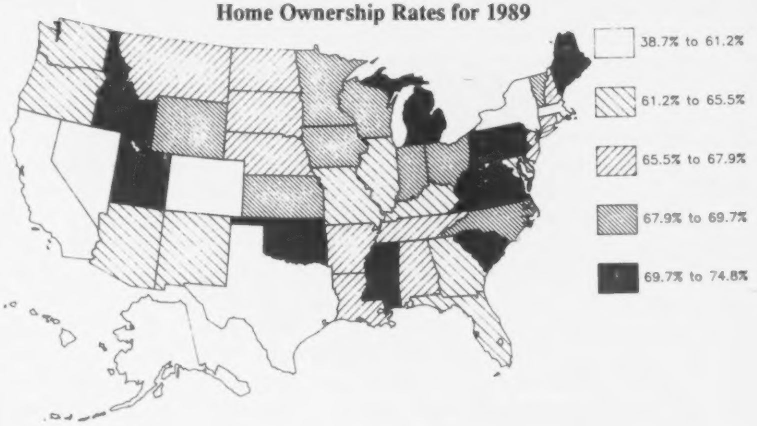
Rates declined in 16 states and increased in ten states from 1984, the year when home ownership data became available by state. In the Northeast, 1989 rates in New Jersey, New York, Pennsylvania, and Vermont were higher than 1984 rates. Massachusetts saw a decline.

Indiana, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota experienced a significant decline in home ownership from 1984 to 1989. Ohio and Wisconsin were the only Midwestern states with a significant increase.

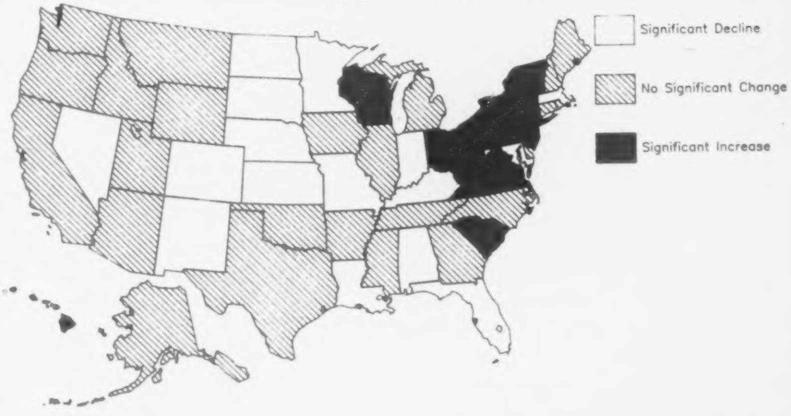
In the South, Alabama, Florida, Kentucky, Louisiana, and Maryland had a significant decline. South Carolina, Virginia and West Virginia increased.

Home ownership rates declined in Colorado, Nevada, and New Mexico. The only state in the West to record a significant increase from 1980 to 1989 was Hawaii.

Home Ownership Rates for 1989



Home Ownership Trend 1984 to 1989



David DeFruiter

Projected Per Capita Income for Selected BEA Economic Areas

Merlin W. Erickson, Research Associate, Bureau of Business Research

A popular measure of economic well-being is per capita income. The Bureau of Economic Analysis (BEA), U.S. Department of Commerce, estimates personal income for the nation as well as for smaller geographic areas. Per capita personal income is derived by dividing the total personal income of an area by the total number of area residents.

Total personal income is the sum of income from all sources, including wages and salaries, transfer payments, proprietors' income, and rental, dividend, and interest income less personal contributions for social insurance. Personal income is measured before the deduction of personal income taxes. Thus, per capita income of an area is the average income for every individual.

The preceding issue of *Business in Nebraska* (December 1990) contained an article about the per capita income ranking of metropolitan statistical areas (MSAs) in an eight state area that includes Nebraska. These rankings were for 1988 and 2000. BEA delineates economic areas as well as MSAs. BEA's definition of an economic area is an economic node–a MSA or similar area that serves as the center of economic activity–plus the surrounding counties that economically are tied to the center. BEA has identified 183 economic areas for the nation.

Of direct interest to Nebraskans, BEA has classified the state's 93 counties into five different economic areas. (See figure on this page.) BEA's economic area 103 contains 11 Nebraska counties, eight Iowa counties, and four South Dakota counties; economic area 143 includes nine counties in Nebraska and 11 counties in Iowa; economic area 145 is composed of the Nebraska Panhandle (11 counties) plus one county in Wyoming; and areas 142 and 144 contain only Nebraska counties.

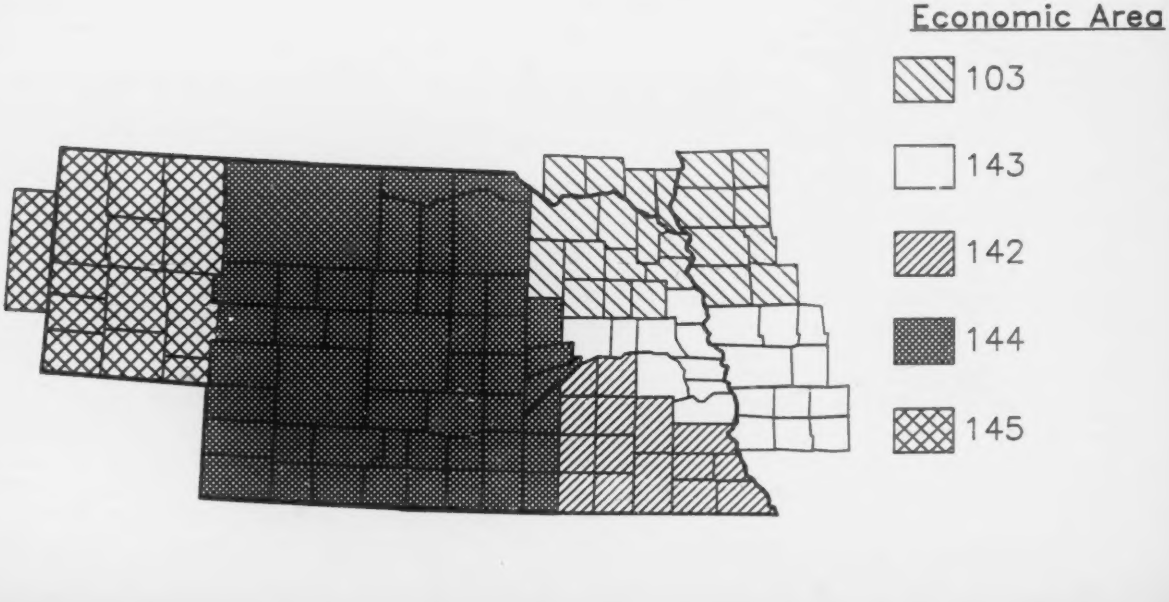
The table on this page presents per capita income figures for 1988 and 2000 for five BEA economic areas and the U.S. The per capita income figures presented in the table are expressed in constant dollar terms for 1982. Also shown are the rankings of these economic areas among the nation's 183 economic areas. All regions that contain Nebraska counties are projected to be below the national average per capita personal income.

For more information, the reader is referred to an article that appeared in the November issue of the *Survey of Current Business*, a publication of BEA.

Per Capita Income Estimates and Projections for BEA Economic Areas
(1982 dollars)

BEA Economic Area No.	1988 Per Capita Income	2000 Per Capita Income	2000 Rank in U.S.
103	$10,610	$12,730	110
142	11,801	14,365	52
143	12,236	14,696	43
144	11,454	13,475	76
145	11,415	13,517	73
U.S.	13,245	15,345	

BEA Economic Areas



Computers : The Silent Worker in Business

Kai Hin Lim, Graduate Research Assistant, Bureau of Business Research

Introduction

The electronic computer has become an integral part of today's business world. Even in the early 1980s, survey information showed that the typical business could not manage more than about 9 percent of its normal operations after 11 days without the use of computers. Electronic computers have changed the way businesses function and the way consumers behave.

Some Early Developments

Until the 1950s, almost all data processing was done manually. Paper, pen, and pencil were the principal tools used for business record keeping.

Before the advent of the electronic computer, record keeping was labor intensive and subject to numerous entry errors. Moreover, the great length of time required to manually record information often resulted in a lack of sufficient and timely information for decision-making purposes.

During the last 40 years, computer technology has advanced significantly. Today's six pound laptop computer can perform at 30 times the speed of the twenty ton giants of the 1940s. The phenomenal advances made in computer technology over the last four decades can be summarized this way: If the automobile industry had done what the computer industry has done, a Rolls Royce would cost $2.50 and get two million miles per gallon.

A recent development in the use of personal computers in the office environment is computer networking. Networking allows businesses to link software and peripheral computer equipment (such as printers and data storage devices) to any number of individual PCs. Through a network system, microcomputers also can serve as an electronic mail system. Finally, network systems can be used to link microcomputers to mini or mainframe computers, where the mini or mainframe computers serve as major data storage centers.

Some Further Developments

No one knows exactly what the future holds in the way of computer and software developments. A look at some recent developments in computer technology and software systems provides some clues about how computers likely will be used in the business world in the future. Several recent developments are particularly noteworthy: expert systems, group decision support systems, multimedia systems, and information partnerships.

Expert Systems

An expert system is a computer system that attempts to replicate the work of a human expert by capturing and incorporating the knowledge of an expert into a computer system. Human experts make decisions and recommendations, such as what company strategy to follow; which bank loans to approve; or what temperature adjustments to make in a manufacturing plant.

Expert systems have been used in the academic and research worlds since the early 1960s. Such systems did not enter the business world until the 1980s.

Many of today's large commercial banks have developed expert systems to simulate the experience and professional judgment of top loan officers. A loan officer approves or rejects a loan application based on the credit history of the applicant and the risk involved.

In addition, a good loan officer uses his or her sixth sense. The sixth sense is the loan officer's qualitative assessment of risk. Expert systems are capable of capturing both quantitative and qualitative factors used by successful loan officers. With the use of such expert systems, junior loan officers are capable of performing at senior loan officer levels.

The potential benefits that expert systems offer businesses are enormous. Expert systems allow relatively inexperienced workers to perform at high levels, can operate without interruption, and can be used to train inexperienced workers. Given the potential benefits that expert systems offer businesses, we should see considerable growth in business applications in the near future, especially in the area of worker training.

Group Decision Support Systems

A group decision support system (GDSS) is a computer system that supports a group of individuals engaged in a decision-making process. Other terms or phrases used to refer to such computer systems are groupware, electronic meeting support systems, electronically supported communities, and computer-mediated communications. GDSS provides considerable flexibility in group decision-making settings by permitting interaction among participants across time and space.

In the 1980s, GDSS was still in the laboratory stage. IBM recently has marketed a GDSS program called TeamFocus. TeamFocus supports group meetings in a centralized location, called a decision room. The system accommodates individual computer terminals for participants in the decision room. One member of the group (either the group leader or a staff member acting as a chauffeur) operates the software needed to create the public projection screen.

Group members participate in the meeting by typing responses or notes via the keyboard at their terminal. They either can send their input directly to the public screen or retain the information for later use. The system can summarize information from the individual participants for screen display to all participants in the decision room. It also can be used for brainstorming sessions and confidential voting sessions.

One of the important potential benefits of GDSS is anonymity. Participants can express their opinions freely without jeopardizing their positions. Also, group members can access privately any piece of information in the system before giving a public response.

Many different GDSS types are possible because GDSS can accommodate any length of time to complete the decision-making process. GDSS also allows for participant interaction from any number of location sites.

Multimedia Systems

Computer systems traditionally have handled mainly numeric data and text. Because decision makers, analysts, and researchers have to deal with all forms of information (such as voice, graphics, images, animations, etc.), we can expect to find several multimedia systems on the market soon. CD-ROM (compact disk-read only memory) likely will play a significant role in multimedia systems. Multimedia systems need large amounts of storage space for different kinds of graphics, images, sounds, etc. A CD-ROM disk can store the equivalent of 500 high density floppy disks of data.

Several major software vendors have started to move toward multimedia systems to improve the ease of learning and use of their systems. Lotus Development Corporation, for example, recently introduced an interactive demonstration tool for users of Lotus 1-2-3 Release 3. The system allows the user to work through the spreadsheet with the assistance of video images and sound.

The system projects high resolution photographs on the monitor. A narrator describes the problem to be solved with occasional background music. The system allows the user to select various options. The narrator details the pros and cons of each option selected. The combination of picture, music, and narrative simulates a realistic, but relaxed, learning environment.

Analysts believe that multimedia systems have strong potential for business presentation and personnel training. The combined use of graphics, images, and sound with traditional text and data can increase retention and understanding.

Information Partnership

The term *information partnership* refers to an agreement between two or more independent organizations to share information from individual customer databases.

An excellent illustration of a company currently using information partnership is Baxter Healthcare (formerly American Hospital Supply). Baxter Healthcare is a major medical equipment and health care supplier. To compete with other suppliers, Baxter established a direct electronic order network with hospitals.

Computer terminals were installed in hospitals served by Baxter, and each terminal was connected to the customer order network. Information on Baxter's prices etc. for the supplies are available on the system. When the inventory of any medical or equipment item is low, the individual in charge of inventory simply notifies Baxter Healthcare by entering the serial number of the item into the computer.

Considerable time and resources are being saved by the system because no paper order is transmitted, no delivery schedule is required, and all major inventory control problems have been eliminated. Through this computer system arrangement, hospitals on the system not only are able to reduce inventory stocks, but also are able to eliminate a considerable amount of paperwork. At the same time, the new system provides Baxter with a locked-in customer market.

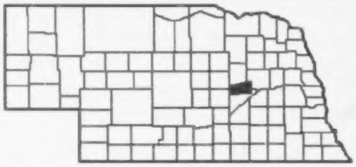
American Airlines and Citibank also have formed a data-sharing partnership. Under their agreement, for every purchase dollar that a Citibank cardholder charges to his or her card, one bonus mile is credited to the cardholder's mileage program with American Airlines. The formation of this partnership has increased customer loyalty for American Airlines. At the same time, Citibank has gained access to a new, low risk customer base.

Recently, this partnership was expanded to include MCI, a long distance phone company. Long distance phone charges with MCI add bonus miles to the customer's free mileage account with American Airlines. Companies participating in information partnerships can create joint marketing programs. They can take advantage of new channels of distribution and operational efficiencies.

It is expected that more companies, small and large, soon will become part of some kind of information partnership. Some experts even have stated that companies that do not develop partnership arrangements in the near future stand a high risk of losing significant market shares in the long run.

County of the Month

Nance



Fullerton--County Seat

License plate prefix number: 58

Size of county: 448 square miles, ranks 80th in the state

Population: 4,400 (estimated) in 1988, a change of -7.5 percent from 1980

Median age: 33.6 years in Nance County, 29.7 years in Nebraska in 1980

Per capita personal income: $12,998 in 1988, ranks 70th in the state

Net taxable retail sales ($000): $14,884 in 1989, a change of 0.9 percent from 1988; $12,896 from January through September 1990, a change of +14.8 percent from the same period one year ago

Number of business and service establishments: 108 in 1988; 63.9 percent had less than five employees

Unemployment rate: 2.7 percent in Nance County, 3.1 percent in Nebraska for 1989

Nonfarm employment (1989):

	State	Nance County
Wage & salary workers	705,672	920
	(percent of total)	
Manufacturing	13.4%	1.0%
Construction and Mining	3.6	1.2
TCU	6.5	9.1
Retail Trade	18.5	12.9
Wholesale Trade	7.6	15.5
FIRE	6.8	5.5
Services	23.7	20.2
Government	19.9	34.6

Agriculture:

Number of farms: 508 in 1987, 478 in 1982

Average farm size: 489 acres in 1987

Market value of farm products sold: $41.2 million in 1987 ($81,130 average per farm)

Sources: Bureau of the Census, BEA, Nebraska Departments of Labor, Revenue

Merlin W. Erickson

Reapportionment Will Shift 19 Seats in the U.S. House of Representatives

The population of the United States counted in the 1990 census is 249,632,692, an increase of 10.21 percent since the 1980 census. These figures and final population counts for the 50 states and the District of Columbia were released by U.S. Secretary of Commerce Robert A. Mosbacher.

Mosbacher also released the official apportionment of the 435 seats in the U.S. House of Representatives. A total of 19 seats will be shifted as a result of the 1990 census. The table below shows 1990 apportionments and changes from the 1980 apportionment.

Eight states will increase their number of representatives in the 103rd Congress, which will convene in January 1993. California will gain seven seats, Florida will increase four seats, and Texas will gain three seats. Arizona, Georgia, North Carolina, Virginia, and Washington each will gain one seat.

Thirteen states will have fewer representatives in 1993. New York will lose three seats. Illinois, Michigan, Ohio, and Pennsylvania each will lose two seats. Iowa, Kansas, Kentucky, Louisiana, Massachusetts, Montana, New Jersey, and West Virginia each will lose one seat.

The apportionment population includes the population of the 50 states plus the overseas military and other overseas federal workers and dependents not in the United States on April 1, 1990.

David DeFruiter

Apportionment of the U.S. House of Representatives

	Apportionment Population	Apportionment Based on the 1990 Census	Change From 1980 Apportionment
U.S. Total*	249,022,783	435	
Alabama	4,062,608	7	-
Alaska	551,947	1	-
Arizona	3,677,985	6	+1
Arkansas	2,362,239	4	-
California	29,839,250	52	+7
Colorado	3,307,912	6	-
Connecticut	3,295,669	6	-
Delaware	668,696	1	-
Florida	13,003,362	23	+4
Georgia	6,508,419	11	+1
Hawaii	1,115,274	2	-
Idaho	1,011,986	2	-
Illinois	11,466,682	20	-2
Indiana	5,564,228	10	-
Iowa	2,787,424	5	-1
Kansas	2,485,600	4	-1
Kentucky	3,698,969	6	-1
Louisiana	4,238,216	7	-1
Maine	1,233,223	2	-
Maryland	4,798,622	8	-
Massachusetts	6,029,051	10	-1
Michigan	9,328,784	16	-2
Minnesota	4,387,029	8	-
Mississippi	2,586,443	5	-
Missouri	5,137,804	9	-
Montana	803,655	1	-1
Nebraska	1,584,617	3	-
Nevada	1,206,152	2	-
New Hampshire	1,113,915	2	-
New Jersey	7,748,634	13	-1
New Mexico	1,521,779	3	-
New York	18,044,505	31	-3
North Carolina	6,657,630	12	+1
North Dakota	641,364	1	-
Ohio	10,887,325	19	-2
Oklahoma	3,157,604	6	-
Oregon	2,853,733	5	-
Pennsylvania	11,924,710	21	-2
Rhode Island	1,005,984	2	-
South Carolina	3,505,707	6	-
South Dakota	699,999	1	-
Tennessee	4,896,641	9	-
Texas	17,059,805	30	+3
Utah	1,727,784	3	-
Vermont	564,964	1	-
Virginia	6,216,568	11	+1
Washington	4,887,941	9	+1
West Virginia	1,801,625	3	-1
Wisconsin	4,906,745	9	-
Wyoming	455,975	1	-

*Total population, not including the District of Columbia

Review and Outlook

John S. Austin, Research Associate, UNL Bureau of Business Research

National Outlook

Quibbling over whether we are in a recession has ended. Even highly placed politicians now are using the term recession to characterize the economy. A December unemployment rate of 6.1 percent, slow automobile sales, anemic retail sales, a nosedive in industrial production of 1.7 percent in November, and housing starts comparable to those of 1981-1982 make the recession obvious to all.

The continuing bank crisis and weak regional real estate markets do not bode well for sagging confidence levels. Real disposable income has been falling since the third quarter of 1990. Gross National Product (GNP) increased 1.4 percent in the quarter. When fourth quarter GNP is released later this month, it probably will show a sizeable drop in real activity.

When will the recession end? Will it be shallow and short or long and deep?

Critical to any economic forecast is the Middle East. In its latest forecast, the WEFA Group issued five scenarios–three based on peace, two on war.

Those who believe the recession will be short and shallow base their projections on several factors: oil prices have dropped from October; there likely will be no war, but some kind of peaceful settlement; inventories are in good shape and have not grown as rapidly as in past recessions; the economy is not overheated; interest rates are low and will stimulate the general economy; and oil price increases have not translated into overall rapid inflation.

Inflation reports for November showed a surprisingly low rate of growth in both the Consumer Price Index (CPI) of 0.3 percent and the Producer Price Index (PPI) of 0.5 percent. The CPI is 6.3 percent ahead of year-ago levels.

Those who believe the recession will be long and deep argue that war in the Middle East is likely and that oil prices will surge to $50 or $60 per barrel. Overall inflation will accelerate.

Table 1
National Indicators

	Annual		Quarterly (SAAR)				
	1988	1989	1989:III	1989:IV	1990:I	1990:II	1990:III
Real GNP (% change)	4.5	2.5	1.7	0.3	1.7	0.4	1.4
Real Consumption (% change)	3.6	1.9	4.6	-0.8	1.1	0.2	2.7
Housing Starts (millions)	1.5	1.3	1.3	1.3	1.4	1.2	1.1
Auto Sales (millions)	10.6	9.9	10.8	8.7	9.7	9.5	9.7
Interest Rate (90 day T-bill)	6.7	8.1	7.8	7.6	7.8	7.8	7.5
Unemployment Rate (%)	5.5	5.3	5.3	5.3	5.3	5.3	5.6
Money Supply, M2 (% change)	5.1	3.7	7.0	7.1	6.4	3.2	3.1
Industrial Production Index (1987=100)	105.4	108.1	108.1	108.1	108.3	109.4	110.4

NOTE: SAAR—seasonally adjusted at annual rates
Source: Bureau of Economic Analysis

Table II
Employment in Nebraska

	Revised October 1990	Preliminary November 1990	November % Change vs. Year Ago
Place of Work			
Nonfarm	733,997	739,449	2.8
Manufacturing	98,167	97,549	2.1
Durables	46,630	46,330	-0.6
Nondurables	51,537	51,217	4.7
Mining	1,603	1,547	1.4
Construction	26,083	25,486	3.4
TCU*	47,327	47,657	2.5
Trade	186,664	189,156	1.2
Wholesale	55,295	55,215	2.1
Retail	131,369	133,941	0.8
FIRE**	47,915	48,070	-1.1
Services	176,237	176,345	3.6
Government	150,001	153,641	5.9
Place of Residence			
Civilian Labor Force	835,910	838,304	2.0
Unemployment Rate	2.0%	1.6%	

* Transportation, Communication, and Utilities
**Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table III
Price Indices

	November 1990	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	133.8	6.3	5.3
Commodities	126.3	6.8	5.1
Services	142.0	5.9	5.5
Producer Price Index (1982 = 100)			
Finished Goods	122.9	7.1	4.9
Intermediate Materials	117.8	5.0	2.0
Crude Materials	116.8	14.2	5.7
Ag Index of Prices Received (1977 = 100)			
Nebraska	156	0.0	3.4
Crops	106	-15.9	-8.4
Livestock	188	7.4	9.1
United States	145	-1.4	2.5
Crops	123	-3.1	-4.0
Livestock	166	0.6	7.7

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

Some advocates of the long and deep recession observe that banks are becoming more conservative in their lending practices. I view this growing differential as an indication that banks are trying to improve their profitability and build their capital positions.

After the long drawn process of the budget compromise, it is unlikely that we will see a sharp increase in federal governmental spending to end this recession. There may be some increases in defense spending to support Desert Shield operations. Other areas of governmental spending are likely to remain as planned.

The Federal Reserve will be alone in its fight against a recession. The Fed has continued to lower short-term interest rates. The Federal Funds rate is now 7.5 percent, only slightly above the current rate of inflation. There is little room for the Fed to push rates much lower. Other interest rates that affect the general public have been much slower to respond. Only recently has the bank prime lending rate been lowered to 9.5 percent.

Long-term interest rates have remained fairly high. The rate of decrease in long-term interest rates does not match the decrease in short-term rates. The Fed is running out of room to operate, yet the impact of its policies on critical long-term rates has been small. The Fed alone cannot bring us out of the recession.

A key to the length of the recession will be consumer confidence. Consumers' lack of confidence is leading to substantially lower automobile sales, weakness in the retail sales market during the Christmas season, and low housing activity.

The drop in consumer confidence from August has been dramatic. According to one analyst, the size of the decrease matches the size of previous drops, only those decreases took two years to develop. Critical to revising consumer confidence are stabilization of the Middle East crisis, continuing decreases in the price of oil, decline of the overall rate of inflation, and responsible actions by government.

One strong signal from government to the consumer would be a good job handling the banking crisis. Continued efforts to correct our budget deficit also may help revise consumer confidence. Consumer confidence cannot go much lower; the issue is how we can reverse its trend.

Nebraska Outlook

The outlook for Nebraska in 1991 hinges more on agricultural markets than on the U.S. recession. Unless the U.S. recession becomes a long and deep one, Nebraska's nonfarm sector probably will continue to perform well in 1991.

Nevertheless, Nebraska sells to national as well as international markets; thus the prospects for a tailing of our growth rate are high. Nebraska farmers face the likelihood of a decrease of 15 percent to 20 percent in net farm income in 1991.

Construction in Nebraska is softening, according to F.W. Dodge. Through November on a year-to-date basis, nonbuilding construction increased 37 percent in total dollar value. Total building construction advanced 8 percent on the same basis. Overall, the increase in Nebraska's value of construction contracts was 14 percent above year-ago levels through November.

Nebraska's success in construction contrasts to a miserable year in construction on the national level. U.S. construction activity is down, due to a severe drop in residential construction. Nonresidential construction has been flat nationally, while public construction has increased.

Table IV
City Business Indicators
September 1990 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	2.9	-1.2
Alliance	1.2	380.1
Beatrice	2.4	22.5
Bellevue	1.0	-42.0
Blair	1.0	-21.1
Broken Bow	1.5	1,213.5
Chadron	12.3	-69.0
Columbus	4.4	-9.0
Fairbury	0.6	131.9
Falls City	6.7	102.4
Fremont	5.8	-45.4
Grand Island	4.2	-11.6
Hastings	4.2	150.0
Holdrege	1.8	255.9
Kearney	3.7	66.0
Lexington	6.2	-6.3
Lincoln	1.3	-14.0
McCook	1.2	-63.7
Nebraska City	-2.0	-80.7
Norfolk	8.0	-41.1
North Platte	7.9	45.9
Ogallala	7.8	30.4
Omaha	1.0	7.4
Scottsbluff/Gering	2.8	3.6
Seward	4.1	195.1
Sidney	3.1	-32.6
South Sioux City	-2.5	-33.3
York	8.6	282.9

(1)As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2)Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

Figure I
City Business Index
September 1990 Percent Change from Year Ago

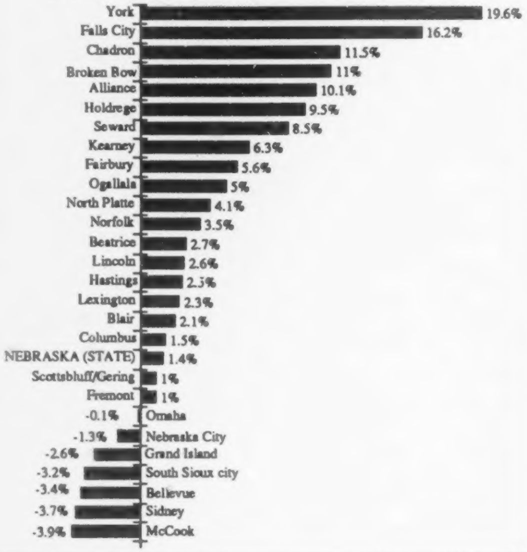


Table V
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)	City Sales (2) September 1990 (000s)	City Sales (2) % Change vs. Year Ago	Region Sales (2) September 1990 (000s)	Region Sales (2) % Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA	$949,471	6.6	$1,065,535	3.5	5.1
1 Omaha	317,489	4.1	388,132	1.3	2.4
Bellevue	13,026	3.2	*	*	*
Blair	4,961	13.1	*	*	*
2 Lincoln	136,508	12.7	154,522	9.2	5.8
3 South Sioux City	6,702	5.9	8,772	5.2	25.8
4 Nebraska City	4,275	24.2	20,551	10.6	9.4
6 Fremont	17,339	9.4	31,741	3.5	7.8
West Point	3,051	0.4	*	*	*
7 Falls City	2,382	29.7	9,741	12.7	8.1
8 Seward	4,595	9.7	14,879	-2.2	7.1
9 York	7,721	28.6	16,220	13.7	4.2
10 Columbus	15,291	6.1	28,242	5.4	6.8
11 Norfolk	20,827	12.3	37,200	9.2	6.7
Wayne	3,411	23.9	*	*	*
12 Grand Island	34,161	-3.1	48,785	-1.8	2.0
13 Hastings	15,330	-3.0	24,995	-3.1	1.9
14 Beatrice	7,623	7.7	18,121	6.1	11.4
Fairbury	2,946	9.3	*	*	*
15 Kearney	20,027	11.6	28,712	6.9	4.7
16 Lexington	6,131	5.8	16,387	2.5	4.6
17 Holdrege	4,610	12.3	8,278	1.2	6.3
18 North Platte	16,754	3.4	21,436	1.0	6.6
19 Ogallala	5,738	6.8	11,413	0.1	2.8
20 McCook	7,813	7.4	11,419	4.1	6.4
21 Sidney	3,666	-1.4	7,774	-2.9	3.2
Kimball	1,868	15.3	*	*	*
22 Scottsbluff/Gering	17,778	5.2	25,366	3.1	4.5
23 Alliance	5,215	11.1	13,686	3.9	3.5
Chadron	2,937	34.0	*	*	*
24 O'Neill	4,612	14.5	15,334	8.9	7.5
Valentine	2,815	14.1	*	*	*
25 Hartington	1,569	24.8	8,941	12.3	7.7
26 Broken Bow	3,259	1.2	12,026	1.6	2.8

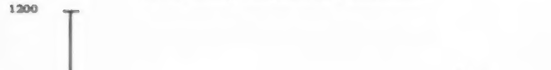
(1)See region map

(2)Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales

*Within an already designated region

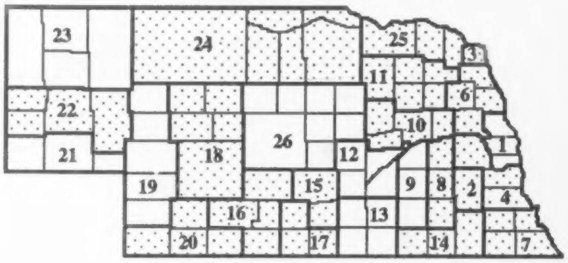
Compiled from data provided by the Nebraska Department of Revenue

Figure II
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure III
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

Nebraska County Profiles Available Now

This handy reference set, prepared by the Bureau of Business Research, University of Nebraska-Lincoln, contains facts and figures about agriculture, population, income, retail sales, employment, education, medical services, and recreation areas for every county in the state. A state profile is also available.

To obtain Nebraska *County Profiles*, note the number of copies in the blank next to the counties that you wish to order and send this form with a check or money order to the Bureau of Business Research, University of Nebraska-Lincoln, 200 CBA, Lincoln, NE 68588-0406.

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____Loup
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____Nance
____Nemaha
____Nuckolls
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State Economic Scoreboard

Change from same month one year ago
See Review and Outlook on page 8 for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (September) Constant $	↓ -21.1%	↓ -22.5%	↓ -19.9%
Nonmotor Vehicle Sales (September) Constant $	↑ 0.4%	↑ 0.3%	↑ 0.4%
Building Activity (September) Constant $	↓ -5.2%	↓ -7.6%	↓ -2.1%
Employment (November)	↑ 3.3%	↑ 1.0%	↑ 5.8%
Unemployment Rate* (November)	↓ 1.6%	↓ 1.6%	↓ 1.6%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

Nebraska's net taxable retail sales are shown in Table V. Total city sales for Nebraska is the state's total of nonmotor vehicle, net taxable, retail sales. In September, total city sales showed an increase of 6.6 percent over year-ago levels. Nebraska's total regional sales gained only 3.5 percent in September.

Nebraska's total regional sales is total net taxable retail sales for the state and includes total motor vehicle and total nonmotor vehicle sales. On a year-to-date basis Nebraska is 5.1 percent ahead of year-ago levels in total retail sales.

Considering that the rate of inflation is near that level, state retail sales are nearly breakeven in real terms with last year. Figure II shows a slight rebound in September retail sales on a seasonally adjusted basis. Retail sales are well below the January 1990 peak in both current and constant dollar terms.

Little is known about retail Christmas sales in Nebraska. Our impression is that total Christmas buying this year equalled last year. If we adjust the figure for inflation, we get a decrease in real terms of about 5 percent. Nebraska's retail sales reflect some of the national recession impacts.

National Christmas sales were disappointing. Without heavy pre-Christmas sales, overall retail sales would have dropped in December. Official national retail sales figures for December will be released soon.

Nebraska's unemployment rate reached 1.6 percent in November. Lincoln registered the nation's lowest rate, 1.0 percent. Unemployment statistics for the state are crude estimates; nevertheless, they reflect Nebraska's ability to create new jobs. This ability is shown in the increase in jobs of 2.7 percent for November versus a year ago (Table II). This increase continues the pattern of the last year and a half.

As the national recession unfolds, we may see some slackening of job growth and concomitant growth in unemployment in the state. Nebraska's unemployment likely will remain well below the nation's.

Nebraska's cattle on feed totalled 2,320,000 head on December 1, 1990, a 10 percent increase above last year's level. Nebraska was virtually tied with Texas. For the seven major feeding states, cattle on feed were approximately 800,000 head higher than year-ago levels. Increased supply coupled with relatively high prices for cattle imply that we may see some softening in cattle prices later this year.

Business
in
Nebraska

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Nebraska Economic Projections: Is A Recession Evident?

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Introduction

The most recent quarterly economic projections for Nebraska prepared by the Bureau of Business Research show that the current national recession is affecting the Nebraska economy only modestly. (The general definition of a national recession is two or more consecutive quarters of negative real Gross National Product (GNP). *Real GNP* is GNP adjusted for inflation).

Recent GNP figures indicate negative growth for the fourth quarter 1990. Consensus projections call for another decrease in the first quarter of 1991. Any predictions of the duration or depth of the present national recession are tenuous, at best, because of the Middle East crisis.

Opinion is divided about the direction of second quarter 1991 real GNP. If the national economy rebounds by midyear, Nebraska should escape any effects of the recession. A strong agricultural sector, especially the livestock industry, is propelling growth in other sectors of the state's economy. It is unclear, however, whether continued strength and support can be expected from agriculture.

Projections from the Quarterly Model

The Bureau of Business Research has been developing and refining a computerized economic projection model for Nebraska, the Nebraska quarterly forecasting model (NEQFM). This model has been operational for approximately six months. NEQFM is being used to assess the economy as well as to generate economic projections.

Some of the latest economic projections from the model are noted below. The complete projection series, including earnings, wages, and salary information is available from the Bureau of Business Research.

A more thorough explanation of how the NEQFM is constructed is presented on page 3.

Growth Impact of Recession

The latest BBR economic projections assume a short, shallow national recession and a return to growth by mid-1991. Any changes in the U.S. economic, political, or military scene (such as a longer and

State Economic Scoreboard

Change from same month one year ago

	State	Metro+	Nonmetro
Motor Vehicle Sales (October) Constant $	⇩ -7.0%	⇩ -12.0%	⇩ -2.5%
Nonmotor Vehicle Sales (October) Constant $	⇩ -1.0%	⇩ -1.7%	⇩ -0.2%
Building Activity (October) Constant $	⇩ -5.8%	⇩ -15.3%	⇧ 5.7%
Employment (December)	⇧ 3.5%	⇧ 1.4%	⇧ 5.7%
Unemployment Rate* (December)	⇩ 2.0%	⇩ 1.7%	⇩ 2.2%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

deeper recession or a rapid military escalation) could change our projections to a certain extent. The projections show a relatively flat but growing economy in Nebraska during 1991 and 1992. Although some sectors will be weak in the early quarters of 1991, gains later in the year will compensate for the slowdown.

Average annual total employment will continue to grow during 1991 and 1992. In 1992, employment will rise slightly more than 1.0 percent, resulting in an increase of about 7,100 jobs (computed from data in Table 1).

Inflationary pressure will precipitate slightly higher rates of increase in wages and salaries and personal income than in employment. Total wages and salaries are expected to rise approximately 4.1 percent in 1991 and 3.9 percent in 1992. Total personal income will increase approximately 3.1 percent in 1991 and 4.2 percent in 1992 (computed from data in Table 2).

Table 1
Nebraska Quarterly Forecasting Model
Nebraska Employment by Industry

Year and Quarter	Mining	Construction	Durables Manufacturing	Nondurables Manufacturing	TCU	Wholesale Trade
1990:1	1,320	22,704	46,763	48,936	46,407	54,085
1990:2	1,632	25,748	46,965	49,190	46,787	55,414
1990:3	1,704	26,663	46,689	50,203	46,855	55,348
1990:4	1,519	25,189	46,552	51,164	47,746	55,126
1991:1	1,332	21,796	46,062	50,154	46,901	54,474
1991:2	1,708	25,427	46,401	50,347	47,741	55,502
1991:3	1,831	27,474	46,306	50,829	48,380	55,555
1991:4	1,711	25,520	46,205	51,187	48,287	54,933
1992:1	1,450	21,215	45,966	50,107	47,506	54,294
1992:2	1,797	25,676	46,674	49,946	48,411	55,328
1992:3	1,894	27,710	46,730	50,634	48,984	55,386
1992:4	1,750	25,747	46,561	51,241	48,825	54,768
			Yearly Averages			
1989	1,503	23,864	46,494	48,322	45,810	53,328
1990	1,544	25,076	46,742	49,873	46,949	54,993
1991	1,646	25,054	46,244	50,629	47,827	55,116
1992	1,723	25,087	46,483	50,482	48,432	54,944

Year and Quarter	FIRE	Services	Federal Government	State & Local Government	Retail Trade	Total Employment
1990:1	48,421	169,951	17,704	126,209	129,567	712,067
1990:2	48,436	174,125	*19,143	129,815	130,761	728,016
1990:3	48,263	173,920	*19,278	123,184	130,966	723,073
1990:4	48,019	175,914	18,501	133,671	133,479	736,880
1991:1	47,845	174,471	18,358	127,471	128,428	717,292
1991:2	48,335	177,606	18,481	131,113	131,596	734,259
1991:3	48,863	177,981	18,395	124,416	132,543	732,572
1991:4	48,662	177,831	18,235	135,008	134,035	741,613
1992:1	48,641	176,924	18,110	128,746	130,025	722,984
1992:2	49,112	180,671	18,164	132,424	133,404	741,607
1992:3	49,564	181,210	18,159	125,660	134,255	740,187
1992:4	49,348	181,207	18,015	136,358	135,565	749,384
			Yearly Averages			
1989	48,331	167,247	17,689	122,800	130,276	705,672
1990	48,285	173,478	18,657	128,220	131,193	725,009
1991	48,426	176,972	18,367	129,502	131,651	731,434
1992	49,166	180,003	18,112	130,797	133,312	738,540

Source: Nebraska Department of Labor
TCU - Transportation, Communication, and Utilities
FIRE - Finance, Insurance, and Real Estate
*Increased employment in federal government during second and third quarters of 1990 were due to temporary census workers
Numbers in shaded areas are projections

The dollar volume of average motor vehicle retail sales will increase approximately 1.4 percent in 1991, while nonmotor vehicle retail sales will swell about 2.4 percent. Total retail sales will increase approximately 2.3 percent. In 1992, the growth rates for motor vehicle, nonmotor vehicle, and total retail sales will be 4.0 percent, 3.9 percent, and 3.9 percent, respectively (computed from data in Table 3).

Table 1 shows that employment will increase in most sectors from 1990 through 1991. Employment in durables manufacturing and the federal government, however, will decrease slightly. Most of the expected employment growth from 1990 through 1991 will be in the service sector.

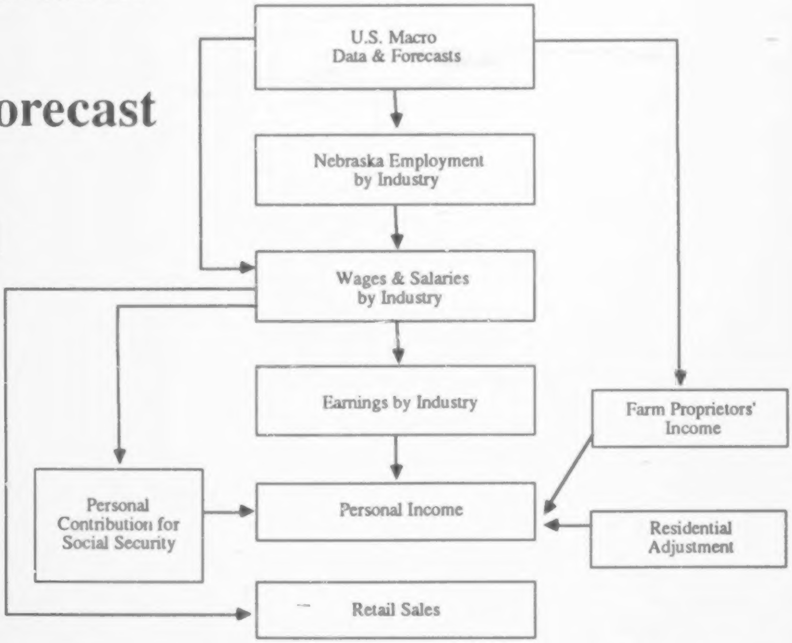
The service sector is an important growth area. Nebraska's service sector largely has been unaffected by previous national recessions. UNL research associate John Austin has noted that service employment sailed through the two recent recessions virtually unscathed.

Employment in nondurables manufacturing and the federal government also will decrease slightly from 1991 through 1992, according to the projections in Table 1. The decreases will be small and well within the error range for estimates. Thus, the projected employment decreases in the two sectors are not considered to be significant.

The encouraging assessment of the impacts of the national recession on Nebraska's economy is reinforced by recent simulations (including some

How the Nebraska Economic Quarterly Forecast Model is Constructed

Figure 1
Nebraska Model Flow Chart


U.S. Macro Data & Forecasts
Nebraska Employment by Industry
Wages & Salaries by Industry
Earnings by Industry
Farm Proprietors' Income
Personal Contribution for Social Security
Personal Income
Residential Adjustment
Retail Sales

The NEQFM begins with a national forecast based upon a U.S. macromodel. We currently are using the services of the WEFA Group, one of the nation's leading forecasting associations, for the national forecast. Today's WEFA Group was formed by the merger of two forecasting firms–Chase Econometrics and Wharton EFA. The WEFA Group prepares quarterly short-term projections and annual long-term projections from large scale econometric models.

Links have been constructed from WEFA forecasts to the Nebraska economy. For example, employment in Nebraska by industry is linked directly to employment levels, by corresponding industries, at the U.S. level. Nebraska industry employment also is affected by seasonal factors that are constructed for each industry and by other special factors unique to the Nebraska data.

Once a forecast of Nebraska industry employment is determined, it becomes a principal element in determining wages and salaries for the industry. The other principal determinant is the Consumer Price Index (CPI). The CPI uniquely affects the wage levels in each industry. Once wages and salaries are estimated, earnings by industry can be estimated. The difference between earnings (a personal income concept) and wages and salaries is other labor income and proprietors' income. Special steps have been built into the model to make the transition from wages and salaries to personal income.

A submodel is used to estimate net taxable retail sales in Nebraska. There are two elements in the submodel: motor vehicle sales and nonmotor vehicle sales. (Food was dropped from taxable sales in October 1983.)

Table 2
Nebraska Quarterly Forecasting Model
Nebraska Personal Income

Year and Quarter	Other Labor Income	Nonfarm Proprietors' Income	Farm Proprietors' Income	Personal Contribution for Social Insurance Income	Dividends, Interest, and Rent	Transfer Payments	Residential Adjustment	Total Personal Income
1990:1	1,281	2,312	2,334	1,465	4,578	3,831	-360	26,701
1990:2	1,314	2,334	1,919	1,480	4,597	3,851	-371	26,743
1990:3	1,331	2,354	1,280	1,502	4,644	3,906	-374	26,402
1990:4	1,357	2,357	1,610	1,506	4,649	3,955	-376	27,084
1991:1	1,365	2,354	1,549	1,543	4,743	4,053	-378	27,256
1991:2	1,370	2,382	1,739	1,555	4,748	4,083	-380	27,547
1991:3	1,378	2,422	1,435	1,570	4,832	4,123	-382	27,489
1991:4	1,394	2,471	1,575	1,587	4,913	4,161	-385	27,966
1992:1	1,414	2,523	1,428	1,628	4,994	4,251	387	28,212
1992:2	1,423	2,580	1,595	1,645	5,077	4,293	-390	28,647
1992:3	1,439	2,640	1,271	1,664	5,181	4,345	-393	28,701
1992:4	1,459	2,701	1,401	1,684	5,297	4,396	-397	29,272
Yearly Totals								
1989	4,865	8,830	6,158	5,543	17,526	14,332	-1,387	99,542
1990	5,283	9,357	7,143	5,953	18,468	15,543	-1,481	106,930
1991	5,507	9,629	6,298	6,255	19,236	16,419	-1,525	110,258
1992	5,736	10,444	5,695	6,621	20,549	17,284	-1,567	114,832

Source: U.S. Bureau of Economic Analysis
Figures in $ millions, seasonally adjusted at annual rates
Numbers in shaded areas are projections

simulations conducted prior to the onset of the recession). Both the simulation analyses and the latest projections indicate slow but steady growth in employment, wages and salaries, and personal income in Nebraska.

To conclude, simulation analyses and current model projections show that the national recession will have isolated negative impacts on Nebraska's economy. The impacts appear to be relatively minor; the most troublesome effect will be a decrease in short-term growth rates. No significant downturn in Nebraska's overall economic activity resulting from the national recession is foreseen at this time. If the state's economy suffers a downturn, it likely will be due to either a downturn in the agricultural sector or longer than expected military involvement in the Middle East. A full scale land war with high casualties easily could alter the course of the national recession and have a greater negative impact on the state's economy.

Table 3
Nebraska Quarterly Forecasting Model
Nebraska Retail Sales

Year and Quarter	Motor Vehicle	Nonmotor Vehicle	Total Retail Sales
1990:1	120,744	839,201	959,945
1990:2	141,206	909,897	1,051,103
1990:3	135,989	898,476	1,034,465
1990:4	111,222	952,430	1,063,652
1991:1	120,865	849,209	970,074
1991:2	137,030	923,564	1,060,594
1991:3	135,740	934,057	1,069,798
1991:4	122,426	980,939	1,103,364
1992:1	127,589	882,299	1,009,888
1992:2	140,853	957,805	1,098,658
1992:3	140,426	971,212	1,111,637
1992:4	127,574	1,019,415	1,146,989
Yearly Totals			
1989	504,181	3,381,267	3,885,448
1990	509,161	3,600,004	4,109,165
1991	516,061	3,687,769	4,203,830
1992	536,442	3,830,731	4,367,172

Source: Nebraska Department of Revenue
Figures in $ thousands, monthly average over the quarter
Numbers in shaded areas are projections

A Qualitative Look at the National Recession and its Impact on the Nebraska Economy

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Elsewhere in this issue, Sanath Jayanetti and Darnell Smith present a detailed quantitative forecast of the Nebraska economy. This article is designed to present qualitative aspects of the near-term outlook for the national economy and to draw some implications for the Nebraska economy.

War and the Economy

Since the last issue of *Business in Nebraska*, the U.S. and allied nations have taken military actions against Iraq. War events now dominate the outlook for the national economy. We will explore two war scenarios and their likely effects on the economy.

The Short-Shallow Scenario

The most optimistic scenario is the war will be short and oil supplies will remain stable worldwide. This scenario leads to a projection of a short-shallow recession. The short-shallow recession forecast was the consensus forecast before the war and is the one used to generate the latest Bureau of Business Research economic projections for Nebraska.

Even with a short-shallow recession, there will be some stimulus from increased defense purchases to replace spent conventional weapons. As an example, December durable goods orders increased 4.4 percent over November, mainly due to increases in military hardware orders.

One month, however, does not a trend make. It is reasonable to expect that defense spending will increase for at least the next several months. This spending may keep the durable goods orders from collapsing, as we might see normally during a recession.

Another feature of the short-shallow recession is that interest rates, especially short-term interest rates, will remain low. In mid-January, the Federal Reserve took action to lower rates. Currently, the Federal Funds rate, a primary indicator of Federal Reserve policy, is dropping again. On February 1, the Fed lowered the discount rate, the rate it charges banks for short-term loans, to 6 percent.

The discount rate action should be viewed as an indicator of the Fed's intentions more than it should be viewed as a critically important interest rate. Little borrowing occurs at the discount rate. If oil supplies stabilize, it is possible that inflation will cool and that long-term interest rates will remain relatively low.

Low rates are good news for the economy. Another essential factor is the recovery of consumer confidence. In January, the Conference Board series on consumer confidence stood at 54. This figure represents a sharp decrease from the high of 110 in the first part of 1990. Increased consumer confidence is critical to a recovery in consumer spending, especially in such large items as automobile sales.

Stimulating consumer confidence to rebound to prewar levels will require an abundance of good news, both from the war front and from the economic front.

Even the optimistic, short-shallow recession scenario does not indicate that we will return to the rates of growth of prior decades. In the long run, we expect growth rates to be in the 2.5 percent to 3 percent area for the remainder of the 1990s. This range contrasts with the 3.5 percent growth rate that some economist regarded as optimal in the 1970s.

The Long War Scenario

The long war scenario brings a forecast for a long recession. Perhaps a worst case scenario would be an outcome similar to Korea . . . a war that extends for a year or more and ends in a stalemate. A long war more likely would result in damage to oil facilities in Kuwait, Iraq, and Saudi Arabia. As a result of the supply disruptions, oil prices would increase sharply.

Oil price increases would raise costs principally in agriculture, manufacturing, transportation, and construction. These increased costs would work their way into the general price level of our nation's and the world's economies.

Rising oil prices and growing inflation rates would put upward pressure on long-term interest rates. Rising interest rates would dampen the prospect for increased spending in the investment sector, particularly in housing.

The longer the war, the more likely it becomes that we will see some military setbacks. These in turn make rebuilding consumer confidence more difficult.

Not all news from a long war scenario is bad for the economy. There is a stimulating impact from increased defense purchases. Some economic historians argue that the solution to the depression of the 1930s was the war of the early 1940s. Certainly there is no comparison in the likely size of the Iraqi conflict and World War II.

It is unlikely that increased defense purchases for the current war effort would be able to offset major drops in consumer expenditures. In any event, we are not advocating war as a method to stimulate the economy. The human loss cannot be compared to any possible economic gain.

Commonalities in the Scenarios

There are some commonalities between the two different economic scenarios. In both cases, oil prices during the war likely will be volatile. Oil prices on the world markets tend to respond to the latest war news. For example, wholesale oil prices were $18 per barrel for Texas crude intermediate before the

Iraqi invasion in August. Oil prices reached a high of $41 a barrel in October.

Oil price volatility has been the watchword since August. Price movement has been dominated by speculation. Even though the shortfall in oil supply caused by Iraq and Kuwait losses has been offset, price changes in the wholesale markets have been dramatic.

Another commonality is that both scenarios include some stimulus due to the restocking of materials and supplies as well as the replacement of conventional weapons used in the war. Both restocking and replacement will be determined by the extent of the war.

The rebuilding of Kuwait after the war offers the prospect of some further stimulus to the American economy. Kuwait has earmarked $110 billion for infrastructure work. Several large American companies already have been approached by Kuwaiti officials to assist in rebuilding efforts.

Last, both economic scenarios are characterized by little hope for a rapidly growing economy once the recession ends. Instead, we most likely will return to moderate growth rates hovering around 2.5 percent in real terms.

What is the most likely scenario? I don't think anyone can make an intelligent guess at this point.

Paying the War Bill

A major issue in the Middle East conflict is how war costs will be paid. There has been some help from various allies in terms of dollar support for the war effort, but there inevitably will be a bill left for the American public to pay.

Conventional weapons and supplies are being used at unanticipated rates. The revised estimate of the federal deficit for 1991 now exceeds $300 billion. A large part of the revised estimate is due to increased war spending.

The issue we must face is how we will pay for the deficit. In a sense, we can pay for it now in the form of increased taxes or we can pay for it later in terms of increased inflation pressures.

We experienced the latter following the Vietnam War. Large increases in spending for the war and for social programs were not matched by increases in taxes. The result was a buildup of inflationary pressures that did not cool until after we had three recessions.

Many tax options are available. A surtax on the income tax structure may be the most likely alternative. It is a relatively easy way to raise taxes quickly. This method tends to minimize the debate over tax equity issues as well.

More Recession Evidence

In other economic news, the start of the recession at the end of last year was verified by the release of the advance Gross National Product (GNP) report. GNP in the fourth quarter fell 2.1 percent. The exact timing of the start of the recession will not be officially determined until after the recession is finished.

Industrial production dropped 0.6 percent in December. Housing starts dropped in December to 987,000. That figure is extremely low. We must return to the depths of the 1981-1982 recession to find housing starts that low.

As we suspected, retail sales were weak in December. Retail sales dropped 0.4 percent before adjustment for price changes. Retail sales for the year as a whole, 1990 over 1989, increased 3.6 percent. Using the Consumer Price Index (CPI) as a rough guide to changes in retail

Table I
Income and Earnings in Nebraska*
($ millions)

	Third Quarter 1988	Fourth Quarter 1988	First Quarter 1989	Second Quarter 1989	Third Quarter 1989	Fourth Quarter 1989	First Quarter 1990	Second Quarter 1990	Third Quarter 1990	% Change 1990:III vs Yr Ago
Income										
Total Personal Income	22,704	23,734	24,818	24,875	24,554	25,294	26,701	26,741	26,401	7.5
Nonfarm	21,548	22,003	22,543	22,990	23,366	23,799	24,198	24,650	24,947	6.8
Farm	1,156	1,732	2,275	1,885	1,188	1,495	2,503	2,091	1,454	22.4
Earnings by Industry**										
Ag. Services, Forestry & Fisheries	134	139	136	143	149	147	155	153	153	2.7
Mining	59	58	56	54	53	55	56	56	60	13.2
Construction	905	945	915	934	919	923	972	963	940	2.3
Manufacturing	2,410	2,438	2,484	2,482	2,495	2,483	2,540	2,597	2,600	4.2
Nondurable	1,194	1,208	1,212	1,234	1,242	1,238	1,212	1,276	1,273	2.5
Durable	1,216	1,230	1,272	1,248	1,253	1,246	1,328	1,320	1,327	5.9
TCU	1,686	1,675	1,737	1,730	1,723	1,738	1,748	1,788	1,794	4.1
Wholesale Trade	1,273	1,295	1,310	1,327	1,334	1,350	1,434	1,428	1,440	7.9
Retail Trade	1,645	1,675	1,694	1,699	1,731	1,749	1,786	1,799	1,811	4.6
FIRE	1,216	1,211	1,242	1,254	1,262	1,314	1,324	1,361	1,395	10.5
Services	3,682	3,792	3,887	3,968	4,075	4,160	4,203	4,351	4,446	9.1
Government	3,048	3,133	3,185	3,256	3,264	3,354	3,396	3,557	3,635	11.4
Federal, Civilian	480	486	501	506	511	516	528	561	579	13.3
Military	404	404	420	417	415	412	421	421	424	2.2
State & Local	2,165	2,243	2,264	2,333	2,338	2,426	2,446	2,576	2,633	12.6

* All data are seasonally adjusted at annual rates
** Earnings is the sum of wages and salaries, other labor income, and income earned by sole proprietors
*** Transportation, Communication, & Utilities
**** Finance, Insurance, & Real Estate
Source: Bureau of Economic Analysis, U.S. Department of Commerce

prices, real retail sales dropped almost 2 percent.

Domestic auto production continued to suffer from low sales levels. The Big Three recently announced first quarter production cuts that will result in production levels that nearly match the low points of the last recession.

The unemployment rate in December rose to 6.1 percent and increased again to 6.2 percent in January. These increases came at the end of almost a vertical ascent that started in June 1990 when the unemployment rate stood at 5.2 percent. Each percentage point of the unemployment rate represents one million persons out of work.

Despite all the recession signals, personal income managed to rise 0.7 percent in December. In light of all bad news about the U.S. economy in December, it is difficult to tell how this feat occurred.

There was good news about inflation in December. The CPI rose 0.3 percent in December, while the Producer Price Index (PPI) dropped 0.6 percent in December. For the year as a whole, however, the CPI rose 5.4 percent and the PPI gained 4.9 percent.

California water shortages and the possibility of higher produce prices will be cause for concern at least until spring. The food component of the CPI will see some increase as a result.

Nebraska Economy

One aspect of the current national economic conditions has a unique impact upon Nebraska. As a general rule, the agricultural cycle and the general business cycle are separate cycles that usually do not coincide. For example, the last recession ended in late 1982, while the agricultural cycle bottomed one year later in 1983. In the present recession, the agricultural cycle will be dropping at about the same time the nation's business cycle reaches its low.

States with large agricultural sectors may suffer from the agricultural downturn more than they will suffer from the recession itself. This most likely will be the case for Nebraska. Unless the recession is longer and deeper than most forecasters currently expect, the nonfarm sector of the Nebraska economy will see little impact from the national recession.

According to F.W. Dodge, the total value of construction contracts in 1990 was 15 percent higher than in 1989. Nonbuilding construction led the pack with an increase of 43 percent. Building construction increased only 7 percent for the year as a whole, with strength concentrated in residential building. Residential construction activity gained 10 percent for the year.

Nebraska received some negative publicity on the release of the third quarter personal income figures developed by the Bureau of Economic Analysis in Washington, D.C. (Table I). Nebraska was one of the few states to show a drop from the second quarter to the third quarter of 1990. This drop was at an annual rate of 5.1 percent.

As usual, changes in Nebraska's personal income data are being driven by changes in the farm income block. Farm income exhibited a single quarter drop of 30 percent, at quarterly rates. Although these data are seasonally adjusted, the farm income series is particularly difficult to adjust. Changes in the timing of agricultural product marketings or the timing of federal government payments to agriculture will cause the net farm income series to jump in either direction.

Perhaps a better indicator is the nonfarm block. Nonfarm income rose 4.8 percent from the second to the third quarter 1990 (seasonally adjusted at annual rates). On the basis of a percentage change from year ago, nonfarm personal income rose 6.8 percent. In the mix of nonfarm income it is difficult to find weaknesses.

All of the sectors showed an increase from year ago levels, although nondurable

Table II
Employment in Nebraska

	Revised November 1990	Preliminary December 1990	December % Change vs. Year Ago
Place of Work			
Nonfarm	741,094	735,551	2.6
Manufacturing	97,335	97,647	1.6
Durables	46,369	46,658	0.2
Nondurables	50,966	50,989	3.0
Mining	1,561	1,392	6.0
Construction	25,483	24,002	5.8
TCU*	47,665	48,246	3.2
Trade	188,982	190,169	1.0
Wholesale	55,114	54,969	1.6
Retail	133,868	135,200	0.7
FIRE**	48,019	48,123	-1.0
Services	176,531	174,975	3.5
Government	155,518	150,997	4.7
Place of Residence			
Civilian Labor Force	838,827	837,173	2.8
Unemployment Rate	1.6	2.0	

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table III
Price Indices

	December 1990	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	133.8	6.1	5.4
Commodities	126.0	6.6	5.2
Services	142.3	5.7	5.5
Producer Price Index (1982 = 100)			
Finished Goods	121.9	5.7	5.0
Intermediate Materials	116.7	4.2	2.2
Crude Materials	110.5	6.3	5.8
Ag Index of Prices Received (1977 = 100)			
Nebraska	154	-3.1	2.7
Crops	109	-14.8	-8.6
Livestock	182	1.1	8.1
United States	145	-2.7	2.1
Crops	122	-3.9	-3.9
Livestock	166	-2.4	6.8

U* = All urban consumers

Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

manufacturing and construction did exhibit a drop from the second quarter to the third quarter. We have addressed the issue of the quality of personal income data in a previous issue of *Business in Nebraska*.

Job increases continued to follow the trends for the last year and a half. Jobs increased 2.6 percent from December 1989 to December 1990. The pattern of job increases tends to characterize the Plains states as well as Nebraska.

Perhaps the one area where Nebraska is reflecting national trends is retail sales. Apparently, Nebraskans have shared in the nationwide collapse in consumer confidence. Retail sales excluding automobiles grew 5.2 percent in October 1990. Total retail sales (including automobiles) increased 4.4 percent versus year ago. Thus, slow automobiles sales have retarded Nebraska's net retail sale figures.

On a year-to-date basis, Nebraska's retail sales grew 5 percent versus year ago. Despite that growth rate, Nebraska retail sales have had difficulty keeping up with changes in the general price level as reflected by the 5.4 percent increase we saw for the CPI for all of 1990.

Table IV
City Business Indicators
October 1990 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	2.3	-1.8
Alliance	1.2	164.9
Beatrice	1.5	70.9
Bellevue	0.7	-55.4
Blair	0.7	-16.0
Broken Bow	-0.8	1114.1
Chadron	11.5	-65.4
Columbus	3.7	-6.3
Fairbury	-0.7	-45.2
Falls City	4.9	97.5
Fremont	5.5	-42.3
Grand Island	3.7	-7.8
Hastings	3.6	134.3
Holdrege	0.4	131.1
Kearney	3.2	81.2
Lexington	5.0	58.2
Lincoln	1.7	-13.1
McCook	0.7	-73.3
Nebraska City	-3.4	-76.7
Norfolk	7.7	-42.5
North Platte	7.6	148.6
Ogallala	6.6	4.5
Omaha	0.7	-4.9
Scottsbluff/Gering	2.6	9.5
Seward	3.6	71.3
Sidney	2.4	492.8
South Sioux City	-1.1	-38.9
York	7.3	276.1

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2) Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

Figure I
City Business Index
October 1990 Percent Change from Year Ago

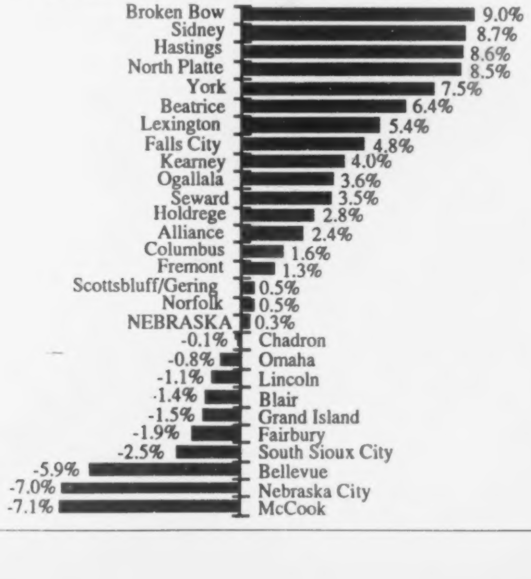


Table V
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)		City Sales (2) October 1990 (000s)	City Sales (2) % Change vs. Year Ago	Region Sales (2) October 1990 (000s)	Region Sales (2) % Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA		$890,762	5.2	$1,018,245	4.4	5.0
1	Omaha	301,340	4.7	373,035	3.1	2.5
	Bellevue	12,154	1.3	*	*	*
	Blair	4,523	4.8	*	*	*
2	Lincoln	117,581	4.0	136,358	3.1	5.5
3	South Sioux City	6,175	7.6	8,036	3.7	23.2
4	Nebraska City	4,147	10.4	18,812	8.5	9.3
6	Fremont	16,778	10.5	30,858	8.6	7.9
	West Point	3,038	8.9	*	*	*
7	Falls City	2,404	5.3	9,618	12.9	8.6
8	Seward	4,369	5.2	14,843	4.5	6.9
9	York	6,392	1.5	14,889	6.5	4.4
10	Columbus	15,056	7.5	28,095	8.9	7.0
11	Norfolk	19,533	6.1	34,676	4.1	6.5
	Wayne	2,910	-3.1	*	*	*
12	Grand Island	32,933	0.1	47,266	0.7	1.8
13	Hastings	15,756	13.7	24,528	9.3	2.5
14	Beatrice	7,829	14.2	17,589	9.1	11.2
	Fairbury	2,843	9.9	*	*	*
15	Kearney	19,430	6.2	27,525	4.7	4.7
16	Lexington	5,751	9.0	15,989	5.4	4.7
17	Holdrege	4,522	3.2	7,947	0.7	5.7
18	North Platte	15,808	8.6	20,454	7.9	6.7
19	Ogallala	5,591	7.9	11,376	8.3	3.3
20	McCook	7,930	4.2	11,463	6.5	6.4
21	Sidney	3,670	4.6	7,570	10.4	3.9
	Kimball	1,523	12.6	*	*	*
22	Scottsbluff/Gering	17,587	4.2	24,838	5.4	4.6
23	Alliance	4,877	0.0	13,850	7.1	3.8
	Chadron	2,665	6.6	*	*	*
24	O'Neill	4,486	8.5	14,868	2.2	7.0
	Valentine	2,744	6.5	*	*	*
25	Hartington	1,742	10.9	9,380	15.4	8.5
26	Broken Bow	3,293	0.4	11,506	2.4	2.7

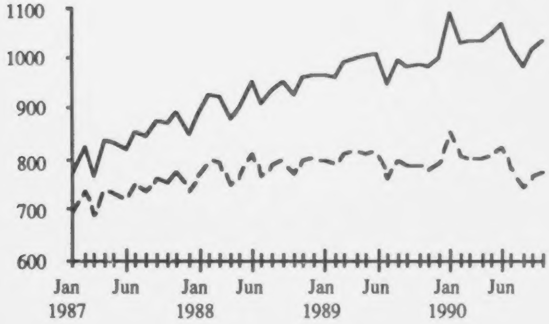
(1) See region map

(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales

*Within an already designated region

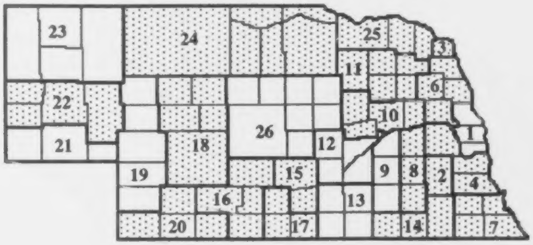
Compiled from data provided by the Nebraska Department of Revenue

Figure II
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure III
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

Nine Nebraska Counties Reach Peak Population

Nine Nebraska counties and the State of Nebraska reached their peak population in 1990, according to data from the Bureau of the Census, U.S. Department of Commerce. Buffalo, Dakota, Douglas, Hall, Lancaster, Madison, Platte, Sarpy, and Washington each contained more persons in 1990 than in prior decennial censuses.

These nine counties, plus Cass County (whose peak population occurred in 1890) are the only counties in the state that show a population increase since the 1980 census. The population increase in these ten counties more than offset the population decrease in the remaining 83 counties by 8,560 persons.

Table 1 shows population counts for 1990 and for the year when peak population occurred. Figure 1 shows the year of peak population and the 1990 population as a percentage of these maximum counts.

Figure 1 shows that seven Nebraska counties reached their peak population threshold to date in 1980, two counties in 1960, one in 1940, 22 in 1930, 17 in 1920, 12 in 1910, 11 in 1900, and 12 in 1890.

Merlin W. Erickson

Figure 1
1990 Census Population as a Percent of Peak Year
and Year of Peak Census Population

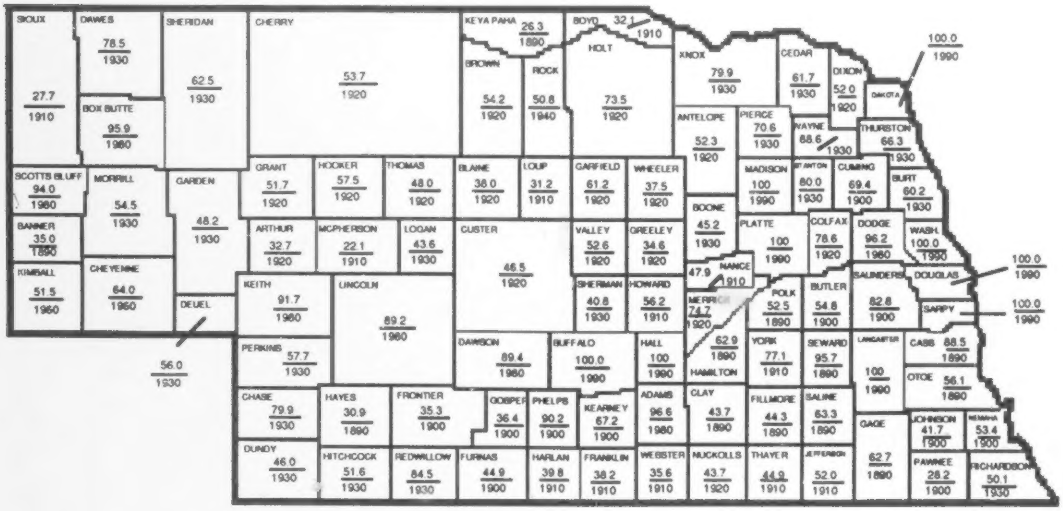

SIOUX 27.7 1910
DAWES 78.5 1930
SHERIDAN 62.5 1930
CHERRY 53.7 1920
KEYA PAHA 26.3 1890
BOYD 32.1 1910
HOLT 73.5 1920
KNOX 79.9 1930
CEDAR 61.7 1930
DIXON 52.0 1920
DAKOTA 100.0 1990
BOX BUTTE 95.9 1980
BROWN 54.2 1920
ROCK 50.8 1940
ANTELOPE 52.3 1920
PIERCE 70.6 1930
WAYNE 88.6 1930
THURSTON 66.3 1930
SCOTTS BLUFF 94.0 1980
MORRILL 54.5 1930
GARDEN 48.2 1930
GRANT 51.7 1920
HOOKER 57.5 1920
THOMAS 48.0 1920
BLAINE 38.0 1920
LOUP 31.2 1910
GARFIELD 61.2 1920
WHEELER 37.5 1920
MADISON 100 1990
STANTON 80.0 1930
CUMING 69.4 1900
BURT 60.2 1930
BANNER 35.0 1890
ARTHUR 32.7 1920
MCPHERSON 22.1 1910
LOGAN 43.6 1930
CUSTER 46.5 1920
VALLEY 52.6 1920
GREELEY 34.6 1920
BOONE 45.2 1930
PLATTE 100 1990
COLFAX 78.6 1920
DODGE 96.2 1980
WASH. 100.0 1990
KIMBALL 51.5 1960
CHEYENNE 64.0 1960
DEUEL 56.0 1930
KEITH 91.7 1980
LINCOLN 89.2 1980
SHERMAN 40.8 1930
HOWARD 56.2 1910
NANCE 47.9 1910
MERRICK 74.7 1920
POLK 52.5 1890
BUTLER 54.8 1900
SAUNDERS 82.8 1900
DOUGLAS 100.0 1990
SARPY 100.0 1990
PERKINS 57.7 1930
DAWSON 89.4 1980
BUFFALO 100.0 1990
HALL 100 1990
HAMILTON 62.9 1890
YORK 77.1 1910
SEWARD 95.7 1890
LANCASTER 100 1990
CASS 88.5 1890
OTOE 56.1 1890
CHASE 79.9 1930
HAYES 30.9 1890
FRONTIER 35.3 1900
GOSPER 36.4 1900
PHELPS 90.2 1900
KEARNEY 67.2 1900
ADAMS 96.6 1980
CLAY 43.7 1890
FILLMORE 44.3 1890
SALINE 63.3 1890
GAGE 62.7 1890
JOHNSON 41.7 1900
NEMAHA 53.4 1900
DUNDY 46.0 1930
HITCHCOCK 51.6 1930
REDWILLOW 84.5 1930
FURNAS 44.9 1900
HARLAN 39.8 1910
FRANKLIN 38.2 1910
WEBSTER 35.6 1910
NUCKOLLS 43.7 1920
THAYER 44.9 1910
JEFFERSON 52.0 1910
PAWNEE 28.2 1900
RICHARDSON 50.1 1930

Table 1
Population of Nebraska Counties, Peak Census Population, and 1990 Census Population

	Largest Population in a Census Year	Population 1990 Census
Nebraska	1,578,385	1,578,385
Adams	30,656	29,625
Antelope	15,243	7,965
Arthur	1,412	462
Banner	2,435	852
Blaine	1,778	675
Boone	14,738	6,667
Box Butte	13,696	13,130
Boyd	8,826	2,835
Brown	6,749	3,657
Buffalo	37,447	37,447
Burt	13,062	7,868
Butler	15,703	8,601
Cass	24,080	21,318
Cedar	16,427	10,131
Chase	5,484	4,381
Cherry	11,753	6,307
Cheyenne	14,828	9,494
Clay	16,310	7,123
Colfax	11,624	9,139
Cuming	14,584	10,117
Custer	26,407	12,270
Dakota	16,742	16,742
Dawes	11,493	9,021
Dawson	22,304	19,940
Deuel	3,992	2,237
Dixon	11,815	6,143
Dodge	35,847	34,500
Douglas	416,444	416,444
Dundy	5,610	2,582
Fillmore	16,022	7,103
Franklin	10,303	3,938
Frontier	8,781	3,101
Furnas	12,373	5,553
Gage	36,344	22,794
Garden	5,099	2,460
Garfield	3,496	2,141
Gosper	5,301	1,928
Grant	1,486	769
Greeley	8,685	3,006
Hall	48,925	48,925
Hamilton	14,096	8,862
Harlan	9,578	3,810
Hayes	3,953	1,222
Hitchcock	7,269	3,750
Holt	17,151	12,599
Hooker	1,378	793
Howard	10,783	6,055
Jefferson	16,852	8,759
Johnson	11,197	4,673
Kearney	9,866	6,629
Keith	9,364	8,584
Keya Paha	3,920	1,029
Kimball	7,975	4,108
Knox	19,110	9,534
Lancaster	213,641	213,641
Lincoln	36,455	32,508
Logan	2,014	878
Loup	2,188	683
Madison	32,655	32,655
McPherson	2,470	546
Merrick	10,763	8,042
Morrill	9,950	5,423
Nance	8,926	4,275
Nemaha	14,952	7,980
Nuckolls	13,236	5,786
Otoe	25,403	14,252
Pawnee	11,770	3,317
Perkins	5,834	3,367
Phelps	10,772	9,715
Pierce	11,080	7,827
Platte	29,820	29,820
Polk	10,817	5,675
Red Willow	13,859	11,705
Richardson	19,826	9,937
Rock	3,977	2,019
Saline	20,097	12,715
Sarpy	102,583	102,583
Saunders	22,085	18,285
Scotts Bluff	38,344	36,025
Seward	16,140	15,450
Sheridan	10,793	6,750
Sherman	9,122	3,718
Sioux	5,599	1,549
Stanton	7,809	6,244
Thayer	14,775	6,635
Thomas	1,773	851
Thurston	10,462	6,936
Valley	9,823	5,169
Washington	16,607	16,607
Wayne	10,566	9,364
Webster	12,008	4,279
Wheeler	2,531	948
York	18,721	14,428

Selected Recent Highway Statistics for Nebraska

According to *Highway Statistics, 1989*, prepared by the Federal Highway Administration, nearly 943.2 million gallons of motor fuel were consumed for highway use in Nebraska in 1989. A comparable estimate for 1990 is about 949 million gallons, representing an increase of 0.6 percent.

The report also shows that 1989 motor vehicle registrations in Nebraska totalled 1,361,724. It is estimated that registrations will increase approximately 1.9 percent in 1990. Automobiles account for about 62 percent of motor vehicles; trucks and buses (including pickups, vans, etc.) make up the remaining 38 percent. Motorcycle registrations show a decline for the period.

Valid Nebraska drivers' licenses totalled 1,064,796 in 1989. The 1990 estimate is 1,081,000, an increase of about 1.0 percent.

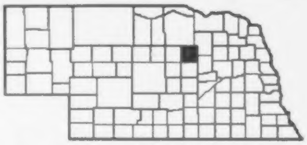
The following list summarizes the relationships between population, drivers, vehicles, fuel, and travel in Nebraska, and the U.S., in 1989:

	Nebraska	U.S.
Licensed drivers per 1,000 resident population	661	668
Registered motor vehicles per 1,000 residents	845	756
Licensed drivers per registered motor vehicle	0.78	0.88
Persons per registered motor vehicle	1.18	1.32
Gallons of fuel per vehicle	693	704
Miles per gallon	14.61	15.98
Annual miles per vehicle	10,120	11,252
Vehicle miles per capita	8,554	8,502
Vehicle miles per licensed driver	12,942	12,727

Merlin W. Erickson

County of the Month

Wheeler



Bartlett—County Seat

License plate prefix number: 84

Size of county: 576 square miles, ranks 52nd in the state

Population: 948 in 1990, a change of -10.6 percent from 1980

Median age: 28.6 years in Wheeler County, 29.7 years in Nebraska in 1980

Per capita personal income: $28,917 in 1988, ranks 1st in the state

Net taxable retail sales ($000): $2,517 in 1989, a change of 4.4 percent from 1988; $2,324 during January through October 1990, a change of 9.6 percent from the same period one year ago

Number of business and service establishments: 15 in 1988; 47 percent had less than five employees

Unemployment rate: 1.6 percent in Wheeler County, 3.1 percent in Nebraska for 1989

Nonfarm employment (1989):

	State	**Wheeler County**
Wage and Salary Workers	705,672	160
	(percent of total)	
Manufacturing	13.4%	—
Construction and Mining	3.6	*
TCU	6.5	*
Retail Trade	18.5	7.5
Wholesale Trade	7.6	16.3
FIRE	6.8	*
Services	23.7	*
Government	19.9	67.5
Total	100.0%	100.0%

Agriculture:

Number of farms: 213 in 1987, 195 in 1982

Average farm size: 1,330 acres in 1987

Market value of farm products sold: $119.1 million in 1987 ($559,008 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

*Data not available due to disclosure suppression

Merlin W. Erickson

Business
in
Nebraska

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Association for University Business & Economic Research

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Business in Nebraska

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Prepared by the Bureau of Business Research, 200 College of Business Administration,
University of Nebraska-Lincoln, Lincoln, NE 68588-0406, 402/472-2334

Your Financial Partner in an Expanding Global Market–Your Nebraska Bank

Tom Olson
President, Lisco State Bank

All businesses–small and large, urban and rural–must consider themselves in the context of a changing global market. A dependable financial partner is important in pursuing global market opportunities. Your Nebraska bank can be that financial partner and a source of information about alternative funding sources.

There are many financing alternatives available to Nebraska businesses. These alternatives include the traditional bank or other financial institution loan, private loans from friends or family, plus many government programs designed to finance new or existing business ventures.

The search for financing begins with conventional forms of financing such as banks, savings and loan institutions, and relatives. There are many state and federal financial assistance programs, quasipublic organizations, private organizations, and special interest group financing, however, that also should be explored. Your Nebraska bank can assist in this effort.

Private Sources

Conventional Loans

Nebraska banks are in a strong position to provide financial assistance to sound business ventures.

During the 1980s, Nebraska banks felt the economic downturn due to the agricultural recession. Nebraska banks have recovered. The capital to asset ratio increased 10.1 percent in 1989. This increase compares favorably to the national gain of 9.4 percent in 1989.

Another important index of bank performance is return on assets. Nebraska banks averaged a 1.2 percent return on assets for the first quarter of 1990, while the return on assets for banks nationwide was 0.71 percent.

Nebraska banks are well capitalized. Their performance records show profitability. Therefore, Nebraska banks can be strong financial partners in global market opportunities.

State Economic Scoreboard

Change from same month one year ago
See Review and Outlook for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (November) Constant $	⇩ -6.7%	⇩ -10.9%	⇩ -3.4%
Nonmotor Vehicle Sales (November) Constant $	⇩ -1.3%	⇧ 0.9%	⇩ -3.4%
Building Activity (November) Constant $	⇩ -4.8%	⇩ -15.9%	⇧ 8.2%
Employment (January)	⇧ 2.1%	⇧ 1.7%	⇧ 2.4%
Unemployment Rate* (January)	⇩ 2.7%	⇩ 2.5%	⇩ 2.9%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

Equity Financing

Equity financing is an option for the individual or a business not strong enough financially to acquire a conventional loan. Equity financing involves dividing ownership of the business among investors. In other words, part ownership in the business is given in exchange for funds. The investors may or may not participate in running the business. The conditions of an equity financing arrangement should be considered before signing any agreement, because such conditions can reduce flexibility in decision making.

Venture Capital

Another source of private financing is venture capital. Numerous private investors engage in venture capital financing with the expectation of large returns. These investors not only expect a good return on their money, but also want an equity position in the company. Venture capitalists are willing to accept additional risk in return for large profit.

Public Sources

There are several state programs in Nebraska that can be helpful in financing a business.

Nebraska Research and Development Authority
(NRDA)

The NRDA has the authority to fund applied research, development, incubation, and commercial projects that have identifiable potential for the Nebraska economy.

Nebraska Investment Finance Authority (NIFA)

NIFA is an independent, nonprofit, quasistate agency that provides low cost financing for manufacturing facilities, certain farm property, health care facilities, and residential developments.

Industrial Development Revenue Bonds

Industrial development revenue bonds can assist development in Nebraska by providing low cost financing for eligible projects through tax exempt bonds. These bonds usually are limited to manufacturing projects (production, processing, or assembly of raw and processed goods) and warehousing.

Community Development Block Grants

This program provides grants to communities to assist businesses that generate wealth by bringing new income into (or reducing the loss of income from) the state and provides jobs, mostly for low and moderate income persons.

Ethanol Plant Construction Assistance

The Ethanol Authority and Development Board provides equity financing for expanded use of Nebraska agricultural products, efficient and less polluting energy sources, development of a more efficiently stored and marketed protein, and alternative outlets for Nebraska agricultural products.

Small Business Administration
(SBA)

A source familiar to Nebraskans is the Small Business Administration, U.S. Department of Commerce. The SBA provides direct and guaranteed loans to small businesses that are unable to obtain financing in the private marketplace. Most commercial banks and savings and loans institutions utilize the SBA programs for their business customers.

SBA also has an extension program for export financing. In addition to SBA's traditional loan program, SBA offers the 504 loan program that assists small businesses by providing long-term financing for fixed assets. SBA provides physical disaster loans and economic injury disaster loans.

Farmers Home Administration (FmHA) Business and Industrial Guaranteed Loans

The Farmers Home Administration, U.S. Department of Agriculture, helps to create and maintain employment and improve the economic and environmental climate of rural communities. FmHA guarantees loans for business and industrial acquisitions; construction, conversion, enlargement, repair, and modernization; purchase of land, machinery, and equipment; processing and marketing facilities; start-up and working capital; and pollution control.

Public Financial Programs for International Trade

SBA

The Small Business Administration (SBA) offers a revolving line of credit to assist small businesses in exporting their products and services. Any number of withdrawals and repayments can be made, as long as the dollar limit of the line is not exceeded and the disbursements are made within a stated maturity period.

To be eligible, applicants must qualify under the SBA size standard and meet other eligibility criteria applicable to all SBA loans. The proceeds may be used to finance labor and materials needed for manufacturing or purchasing goods or services for export and to develop foreign markets.

This financing is available only under SBA's guaranteed loan program; a prospective applicant should review the export financing needs of the business with his or her Nebraska bank. If the bank is unable or unwilling to make the loan directly, the possibilities of SBA participation should be explored.

The SBA also has an international trade loan program that assists small businesses presently engaged or preparing to engage in international trade and small businesses adversely affected by competition from imports. Loans are made through lending institutions under SBA's guaranteed loan program. Proceeds may be used for working capital, facilities, or equipment.

Commodity Credit Corporation
(CCC)

One of the more familiar programs is the U.S. Department of Agriculture Commodity Credit Corporation (CCC) Commercial Export Program. This program provides short-term financing of U.S. agricultural commodities, enabling U.S. exporters to sell on a deferred payment basis.

The program is designed to expand U.S. agricultural exports by stimulating U.S. bank financing of foreign purchases on credit terms of up to three years. In every transaction, the foreign buyer's bank must issue an irrevocable letter of credit covering the port of value of the commodity exported. CCC's guarantee will cover most of the amount owed to the U.S. bank in case the foreign bank defaults.

Food for Peace

The U.S. Department of Agriculture also has a Food for Peace program, more commonly referred to as PL-480. Current emphasis is on food aid on concessional terms and, in some instances, grants. PL-480 also expands markets for U.S. agricultural commodities and promotes economic development by increasing access of the poor to a growing and improving food supply.

PL-480 provides food relief to countries stricken by natural disaster or other emergency. Exporters should apply to the PL-480 operations division for approval as an eligible supplier.

Other

Other financing vehicles include the Export-Import Bank, Foreign Credit Insurance Association, Overseas Private Investment Corporation, International Development Cooperation Agency, World Bank Group, Inter-American Development Bank, Asian Development Bank, and the African Development Bank Group.

Conclusion

Your Nebraska banker, with the assistance of SBA and other agencies, can be a partner in your business operations. These institutions and agencies can help you determine whether your production can be geared for a foreign market and whether you have the financial ability to expand.

Resource counseling is available from the U.S. Department of Commerce, the Nebraska Department of Economic Development, correspondent banks in Nebraska with international divisions, and the Midwest International Trade Association, as well as from a number of private sector advisors.

This article is excerpted from a longer address originally presented at the Bureau's State of the State Conference on December 6, 1990 in Scottsbluff.

*Material from **Guide to Doing Business in Nebraska**, published by the Nebraska Department of Economic Development, was used in preparing this article. The Department of Economic Development is developing a directory of business assistance programs in Nebraska for distribution in April 1991.*

The Business Incubator–A Rural Economic Development Tool

Raymond A. Marquardt
UNL Agribusiness Program Director and Professor of Marketing
Steven A. Schulz
Graduate Assistant, UNL Department of Marketing

In the 1980s universities and economic development agencies encouraged the establishment of business incubators to bolster economic development. Business incubators are designed to cultivate the formation of new business ventures in an environment conducive to success.

Business Incubator Inputs and Outputs

Incubators seek to give structure and credibility to start-up or emerging ventures by providing four types of resources: secretarial support, administrative assistance, facilities support, and business expertise (including management, marketing, accounting, and finance).

The business incubator allows aspiring entrepreneurs, or tenants, more freedom to be creative–entrepreneurs can devote their time and energy to product or service development rather than to management or financial concerns. Shared support can reduce the overall level of financing required for an individual firm. Figure 1 illustrates the inputs and outputs of the business incubator.

The incubator can accelerate the learning process for entrepreneurs through workshops and training activities that focus on business strategies and formulas for success. The incubator can provide access to networks of suppliers and sources of information, thereby enabling tenants to target problems and identify and implement solutions quickly and efficiently.

Numerous authorities believe that rural economic development depends upon rural entrepreneurship. *Rural entrepreneurship* is defined as the creation of an organization that introduces a new product or service, creates a new market, or brings new technology to the rural environment.

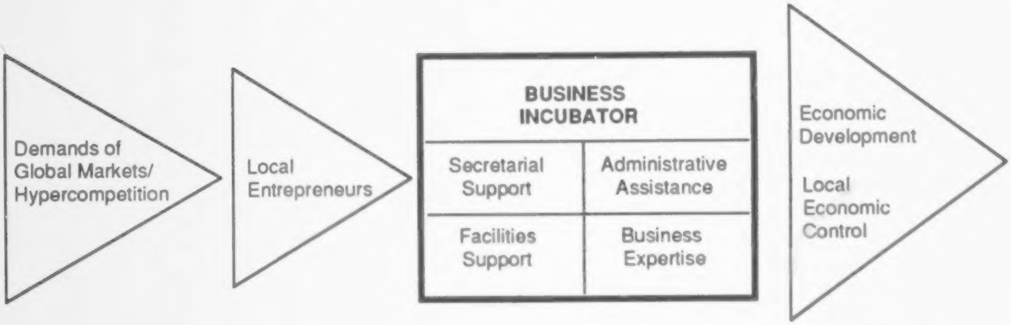
The nation's farm resident population decreased approximately one million persons in the 1980s, continuing a long-term trend. The number of large farms (those grossing over $500,000 annually) grew 15 percent between 1982 and 1987, but the numbers of all other size farm operations fell.

In the face of decreasing farm employment, falling farm earnings, and leveling farm property values, the rural economy must encourage the formation of new firms and the expansion of existing firms to maintain current levels of employment. Off-farm employment must be facilitated to maintain or expand rural population and per capita income.

Any locale must maintain its population and per capita income in order to generate taxes for municipal services such as utilities, roads, and schools. Increased rural entrepreneurial activity can be an important source of off-farm employment.

The business incubator appears to have a future in rural areas. Statistics reveal that in 1990, 28 percent of active incubators were located in rural areas. (*Rural* is defined in this article as a county with a population of fewer than

Figure 1
Inputs and Outputs of Business Incubators



50,000 residents.) The average rural incubator contains approximately 30,000 square feet of renovated space and houses seven tenant companies.

The total number of incubators in the U.S. has increased ninefold since 1984 to over 400 in 1990. Although differences exist between rural and urban incubators, the average age of each is 4.3 years. This statistic indicates that rural incubators currently are as viable as their urban counterparts.

Critical Factors in Incubator Development

It is important that individuals involved in rural economic development understand the factors that are critical to the performance of business incubators (Figure 2). The more extensively these factors are incorporated into an incubator, the greater is the likelihood that the incubator will contribute to overall economic development efforts.

On-Site Business Network

Entrepreneurship requires relationships with individuals and institutions. The successful entrepreneur requires access to sources of ideas, to information, and to raw materials. The knowledge that is available in incubators may be leveraged into tenant companies through:

- An incubator director or president who brings management and marketing experience to the incubator;
- A board of directors with a range of expertise that can be shared with tenant companies;
- An advisory council of key professionals to whom tenant companies have access;
- A network of consultants and suppliers providing services and materials, often on a favorable fee basis.

Access to Financing and Capitalization

The necessary access to financing includes evaluation of financial options, access to loans and grants, loan packaging, and introduction to venture capitalists. Most venture capital firms prefer to invest in companies with proven management and demonstrated market competence.

Incubators can provide important links to the venture capital community by focusing early attention on tenant companies, by making introductions as the companies prove themselves in the marketplace, and by educating the tenant companies in the venture capital process.

Incubators can provide indirect access to start-up capital by obtaining funds from community, state, and federal sources and passing some of these resources to the tenant companies in the form of lower rents and lower fees for services.

More than 60 percent of all incubators receive financial assistance from local governments, but local financial support is not entirely from public agencies. Private sources provide financial assistance to nearly 70 percent of incubators.

More than 40 percent receive funding from local economic development organizations or private industrial councils. More than 35 percent of all incubators receive support from local chambers of commerce. Industrial revenue bonds provide funding to more than 5 percent of incubators.

State and federal governments frequently combine with local agencies to provide additional funding for incubators. More than 60 percent of incubators receive financial support from state agencies. State revolving loan funds are used by 25 percent of all incubators. Common sources of federal financial assistance are the Economic Development Administration, the Community Development Block Grant program, and the Job Training Partnership Act.

Multiple sources of financing are required to meet the annual operating budgets and salaries and to establish the physical facilities needed by an incubator. Operating costs vary by the type of incubator, but the median annual expenditure is $85,000.

In addition, median annual salary expenses are approximately $40,000. Salary costs vary considerably relative to the scope, purpose, and location of the incubator. The cost of the physical facilities range from several thousand dollars for a donated vacant building to millions of dollars for a new high technology facility.

Shared Support

Incubators provide tenants with shared support services that, in turn, can reduce the level of financing required. Secretarial services include word processing, photocopying, and receptionist duties. Administrative services include contract administration and bookkeeping. Shared facilities services include security, conference rooms, computers and other equipment, parking facilities, and custodial services. The incubator also may provide expertise in the management, marketing, accounting, or finance segments of the tenant firm.

Perception of Success

Private capital and entrepreneurial talent only will flow into the most attractive projects. An attractive facility, affiliation with key institutions, an experienced incubator manager, a noted advisory council, a group of promising start-up companies, and successful firm expansion records all contribute to the perception of success.

Selection Process for Tenants

Clear selection criteria improve the chances of incubator success. Criteria for tenant selection vary with the objectives of the incubator. Because job creation and/or economic development is the primary objective of 80 percent of incubators, common criteria used to select tenants are:

- Ability to create new jobs;
- Ability to pay operating costs;
- A concise business plan that includes a cash flow statement and a market analysis;
- A unique opportunity;
- Growth potential;
- Specific industry focus (e.g., light manufacturing, high technology, professional services, etc.).

Concise Program Milestones with Clear Policies and Procedures

Incubator management must inform tenants of the criteria under which their performance will be evaluated and of the incubator's policies and operating procedures. Tenants must be aware of the expectations placed upon them, the resources available to meet these expectations, and the standard procedures for day-to-day operations.

An especially important criterion is the length of time a tenant may occupy the incubator. The time limit should be established prior to a tenant's entrance into the incubator. The length of time will vary in relation to supply and demand for space, but should be consistent for all tenants entering the incubator at the same time. More than 75 percent of the companies spawned by incubators have occupied positions within the incubator environment for less than three years.

Sponsorship

Economic development agencies, local technical schools and community colleges, local governments, and for-profit organizations presently take the most active roles in sponsoring rural business incubators. Many active incubators have more than one sponsor. Three to four sponsors are recommended for new incubators.

Approximately 35 percent of active incubators have ties to local universities, colleges, or technical schools. Such ties provide access to research facilities, workshops, ideas, and student labor. Links with incubators allow commercial applications of the basic research conducted in these institutions to be developed.

Incorporating Incubators into Economic Development Plans

Industrial relocation tends to be a zero-sum game in which one region benefits only at the expense of another. Encouraging the growth of native companies can be a more beneficial long-term economic development strategy because such a strategy harnesses local entrepreneurial talent and keeps this talent within the community.

Growing local companies can enhance economic diversification by creating a climate within the area that rewards productivity and innovation. Finally, growth of native companies can add economic value to a region and promote local control of the economy.

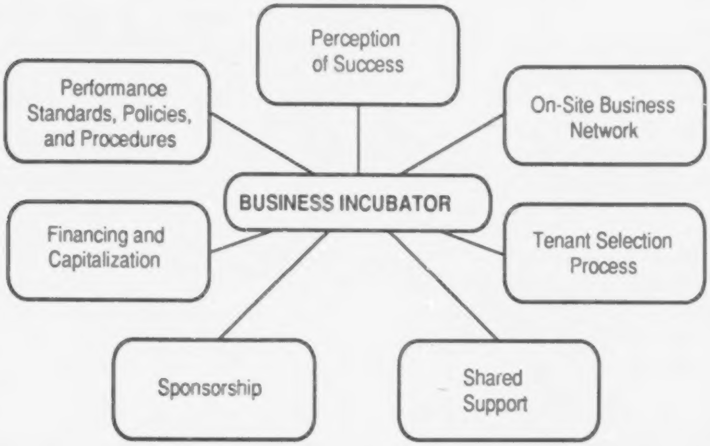
Specific industries with the potential to succeed in a rural business incubator include light and heavy manufacturing, direct mail, research and development, sales and marketing, and high technology. In the agribusiness area, companies involved in plant and animal biotechnology, pharmaceuticals, herbicides, pesticides, water treatment, food products, and aquaculture offer the most potential for success.

Conclusion

It is too early to compare the survival rate of firms raised in an incubator environment to the one-in-five survival rate for small businesses after the standard five year development cycle. The performance of incubator firms to date, however, has been encouraging.

It is vital that rural incubator-raised firms perform successfully outside the incubator to add support to the rural infrastructure and to assist production agriculture if such firms are to remain competitive in the world marketplace.

Figure 2
Factors Critical to Incubator Development



Land, Labor, Capital, and . . . the Entrepreneur?

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How brightly the entrepreneurial flame burns in Nebraska is a question of interest to many Nebraska business leaders and economists. The answer, based on a Gallup survey and some basic research, is that the flame does burn, but that the activities of an entrepreneur need nurturing and encouragement. This article describes the role of today's entrepreneur and offers some recommendations on how entrepreneurship can be encouraged in state colleges and universities.

Today's Entrepreneur

The entrepreneur historically has been viewed as an economic hero who started a new business such as a small store in a mall or a manufacturing plant on the outskirts of the city. The entrepreneur was considered to be a highly independent person willing to take risks in the pursuit of success. Entrepreneurs were thought to have inherent traits that fueled the entrepreneurial flame. Today experts paint a new picture of the entrepreneur.

John Case, of *Inc.*, and Gilbert Zoghlin, of *Personnel Administrator*, agree that successful emerging entrepreneurs are neither creating new businesses nor designing new products. According to *The Wall Street Journal* (November 17, 1987), "discharged executives are starting their own businesses at more than twice the rate they did two years ago."

This trend makes sense in today's competitive global economy. Starting a new business involves an established network of contacts and knowledge of the customers, suppliers, partners, and sources of capital. The entrepreneur must know the ins and outs of the business in order to be successful. Case feels that entrepreneurs are made by the changing marketplace, not born.

C.K. Prahalad, Vladimar Pucik, and Paul Thorne see today's entrepreneurs as *intrapreneurs*. Thorne describes the intrapreneur as "the entrepreneur grows a business of his own, . . . the intrapreneur, (generally) a large company employee, grows one for others, mainly his employer." Innovation is not reserved for small business, but is becoming a common activity in larger firms.

It is important to recognize the source of entrepreneurs. Whether they are departing executives or innovative middle managers for a multinational company, entrepreneurs need to be allowed to make what they can of the situation.

Table 1
Survey Demographics

	Occurrence Rate (%)	
	Nebraska	National
Class Standing		
Freshman	23	22
Sophomore	22	25
Junior	29	25
Senior	25	28
Sex		
Male	53	51
Female	47	49
Region of U.S.		
Northeast	*	16
South Central	*	32
North Central	*	29
West	*	23

The percentages may not total 100 due to rounding

The Survey

This article is based on a survey that was conducted in the spring of 1990 by the Nebraska Center for Entrepreneurship of the College of Business Administration at the University of Nebraska-Lincoln. Data were collected by random phone calls: 203 in Nebraska and 233 nationally.

The survey was prepared by SRI Gallup, but the overall structure of the questionnaire was developed by the Nebraska Center for Entrepreneurship. The survey participants were students in grades nine through twelve.

Findings

The main purpose of the survey was to compare the entrepreneurial tendencies of Nebraska high school students with those of high school students nationally. Table 1 provides some information on the participants in the Gallup survey. (The national survey encompassed every state, including Nebraska, based on population distribution.)

Survey participants were evenly distributed. Both Nebraska and national participants were composed of nearly 50 percent men and 50 percent women. Additionally, each high school class–freshman, sophomore, junior, and senior–accounted for approximately one quarter of the surveyed students. Some of the statistical results of the survey are highlighted in Table 2.

Many of the Nebraska responses did not vary significantly from those of students nationwide. For example, 40 percent of both national and Nebraska students had owned their own business in the past, where a lemonade stand or a newspaper route were considered to be self-owned businesses.

Table 2
Survey Highlights

	Occurrence Rate (%) Nebraska	Occurrence Rate (%) National
Percentage of students who have owned their own business in the past. This could include anything from a lemonade stand to a newspaper route	40	40
Percentage of students who were holding part-time jobs at the time of the survey	62	43
Percentage of students who rate the availability of more opportunities as "very important" when deciding whether to move to another state after high school graduation	48	51
Percentage of students who plan to attend a place of higher education their first year after high school	83	79
Percentage of students who plan to attend a university or college their first year after graduation	70	57
Percentage of students who plan to attend a community college or technical school their first year after graduation	13	22
Percentage of students when surveyed on a scale of 1 to 5 (5 being very likely) who rated the likelihood of owning their own business in the future as 4 or a 5	29	37
Percentage of students who plan to be self-employed ten years after graduation from high school	18	23
Percentage of students who plan to be employed by a company ten years after graduating from high school	60	54
When asked, "If you were to own a business, which of the following best describes how you might go about it?"		
Percentage of students who said they would join a partnership or corporation	54	41
Percentage of students who said they would start their own business	21	31

Each of the highlighted statements indicate statistically different percentage responses for Nebraska and the U.S. The statistical test for differences reflects a 95 percent confidence level in the test results

The results show only a 5 percent difference in the responses regarding whether students plan to be self-employed ten years after high school. Due to the size of the survey sample, the 5 percent difference is not statistically significant. We cannot say with confidence that fewer Nebraskans want to be self-employed in ten years.

The statistics that did differ significantly offer some insight into how Nebraskans, and perhaps Midwestern youth in general, differ from the national sample.

Nearly 1.5 times more Nebraska high school students were employed part-time than their peers nationwide. This statistic may reflect the work ethic of Nebraska youth. Employers often say that they are impressed with the work ethic of Midwestern employees.

The second significant result of the survey is that many Nebraska students plan to attend a four year institution, as opposed to a technical school or community college. This result may be credited to the relative ease of admission to four year state schools in Nebraska, the emphasis on four year college education by parents and high school teachers, and the difficulty in transferring community college credit to Nebraska's four year institutions.

Counselors in the public schools may leave most Nebraska students with the impression that a four year college degree is critical to future success. Parents tend to reinforce this concept because they want what they feel is best for their children.

This impression impacts the state's community colleges because of the difficulty in transferring credit. Credit transfer difficulties reduce the worth of community college degrees for those who plan to further their education.

The last significant difference in the poll is the willingness to take risks. The survey results show that Nebraska high school students would rather join a corporation than start their own business. At first glance, this statistic seems to indicate a lack of entrepreneurial tendencies on the part of our students.

But considering that many of today's entrepreneurs are the departing executives or the innovative middle managers (intrapreneurs), Nebraska entrepreneurs may have a slight edge due to the desire initially to be part of a corporation.

Recommendations

The survey findings and recent research suggest several avenues for encouraging entrepreneurship in Nebraska youth.

Because of the large number of Nebraska high school students who enroll in four year institutions, a general course on entrepreneurship offered by these institutions would be beneficial.

Expanding the community college system to include entrepreneurial courses also would help.

Of those Nebraska high school students surveyed who planned to attend a community college or technical school, 52 percent said they were likely to own a business in the state, while only 25 percent of the Nebraska students who planned to attend a four year institution responded similarly. Offering classes on entrepreneurship in community colleges and technical schools could stimulate the growth of new businesses in rural communities.

The best way to fuel entrepreneurship in Nebraska is to allow everyone to follow his or her dream. With some encouragement, the stifled entrepreneurial flame in Nebraska once again could glow brightly.

References

Case, John, "The Origins of Entrepreneurship," *Inc.* (June 1989), pp. 51-54+.

Prahalad, C.K. and Vladimar Pucik, "Can Entrepreneurs Find a Home in Big Business?" *Business and Society Review* (Winter 1989), pp. 9-12.

Thorne, Paul, "Entrepreneurs: Our Economic Saviors," *International Management* (November 1988), p. 73.

Zoghlin, Gilbert, "Departing Executives, Emerging Entrepreneurs," *Personnel Administrator* (March 1989), pp. 78+.

Special thanks to Robin Anderson, Director of the Nebraska Center for Entrepreneurship, for his guidance in the preparation of the survey.

Review and Outlook

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National Economy

Mini-boom?

With the war in the Middle East at an end, the possibility of our current recession being short and shallow has increased substantially. The question now is what are the chances that the recession may end with a mini-boom? I think the odds of a mini-boom occurring are small, but positive. There are many things that must fit into place in order to create a growth surge.

Some factors needed to support a mini-boom already exist:

- The war is over; however, there must be no restart of the war effort.
- The Kuwait rebuilding effort may bring some extra money into the U.S. economy. Initially, the impact on the U.S. will be focused narrowly on large U.S. construction companies that have established a presence in the Middle East. Thus, the direct employment impact on our economy likely will be small. Indirect employment benefits could be significant, however, because of goods and materials purchased by U.S. construction companies operating in Kuwait.
- U.S. Defense Department orders for replacement of weapons used during the war will be a stimulus. As one example, the Patriot missile plant in Florida was scheduled to be closed. Instead, large new orders have been placed there. Furthermore, a new positive view toward the military could trigger increased defense spending for the next several years.
- Low interest rates and low prices will stimulate the economy. Now is a good time to buy, especially items that usually are financed (such as houses) and durable goods (such as automobiles). These industries have suffered most in the current recession, and buyers will find that sellers are interested in moving their products.

Even if the mini-boom were to occur, there remains a question of whether this boom could be sustained. Frankly, I doubt it. The long-run trends in our economy likely will work against a return to the rapid growth rates such as those seen in the 1960s and 1970s. Instead, underlying demographics and other factors argue that our long-term growth rates will be 2.5 percent to 3.0 percent for the balance of this decade.

Harbingers of a Return to Growth

What are some of the signs that indicate that the recession is ending? Consumer spending is vital. Consumer spending accounts for two-thirds of total spending in our economy. A reversal of the recession without a reversal of consumer spending is nearly impossible.

A key ingredient to any return to growth is a resurgence of consumer confidence. The drop in consumer confidence from August to January was extreme. The Middle East war precipitated the drop in confidence. We hope the ensuing peace will rebuild consumer confidence rapidly. One of the two national indexes of consumer confidence, the Conference Board Survey, increased slightly in February.

A critical part of consumer spending is automobile sales. Auto sales took a nose dive early in the recession. Domestic producers have idled several U.S. plants. Chrysler Corporation announced in February a full shutdown of all production for one week. Such action is unprecedented. A reversal of fortunes in the automobile industry is essential. Increased auto sales will lead to increased production and employment. Automobile sales long have been viewed as a gauge of overall consumer spending plans.

Housing starts are another important variable to watch. We must be cautious about this variable, as housing starts for the early months of the year easily can be distorted by weather factors. A single month increase is not enough to signal a reversal. Nevertheless, conditions are favorable for a rebound in housing. Increased consumer confidence and low interest rates should stimulate residential construction activity. Mortgage rates are

Table I
National Indicators

	Annual		Quarterly (SAAR)				
	1989	1990	1989:IV	1990:I	1990:II	1990:III	1990:IV
Real GNP (% change)	2.5	0.9	0.3	1.7	0.4	1.4	-2.0
Real Consumption (% change)	1.9	1.0	-0.8	1.1	0.2	2.7	-2.9
Housing Starts (millions)	1.3	1.2	1.3	1.4	1.2	1.1	1.0
Auto Sales (millions)	9.9	9.5	8.7	9.7	9.5	9.7	8.9
Interest Rate (90 day T-bill)	8.1	7.5	7.6	7.8	7.8	7.5	7.0
Unemployment Rate (%)	5.3	5.5	5.3	5.3	5.3	5.6	5.9
Money Supply, M2 (% change)	3.7	5.1	7.1	6.4	3.2	3.1	1.8
Industrial Production Index (1987=100)	108.1	109.1	108.1	108.3	109.4	110.5	108.2

NOTE: SAAR—seasonally adjusted at annual rates
Source: Bureau of Economic Analysis

Table II
Employment in Nebraska

	Revised December 1990	Preliminary January 1991	January % Change vs. Year Ago
Place of Work			
Nonfarm	749,907	737,399	4.7
Manufacturing	101,089	100,744	4.6
Durables	49,456	49,441	2.7
Nondurables	51,633	51,303	6.5
Mining	1,591	1,397	12.5
Construction	27,407	25,089	12.9
TCU*	46,309	45,884	0.7
Trade	192,109	188,073	3.4
Wholesale	51,070	51,306	-1.6
Retail	141,039	136,767	5.3
FIRE**	48,734	49,107	2.5
Services	185,302	183,253	7.9
Government	147,366	143,852	3.2
Place of Residence			
Civilian Labor Force	840,284	839,094	0.1
Unemployment Rate	1.9	2.7	

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table III
Price Indices

	January 1991	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	134.6	5.7	5.7
Commodities	126.0	5.1	5.1
Services	143.8	6.2	6.2
Producer Price Index (1982 = 100)			
Finished Goods	121.9	3.7	3.7
Intermediate Materials	116.4	2.6	2.6
Crude Materials	113.8	6.7	6.7
Ag Index of Prices Received (1977 = 100)			
Nebraska	150	-7.4	-7.4
Crops	109	-14.8	-14.8
Livestock	177	-3.3	-3.3
United States	144	-6.5	-6.5
Crops	122	-9.6	-9.6
Livestock	165	-4.1	-4.1

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

relatively low. Furthermore, builders have slack capacity and are looking for business. Thus, a sudden increase in demand for housing can be accommodated easily.

What other signs may signal a recovery? The Industrial Production Index is a barometer of overall industrial health. That index has been impacted dramatically by changes in automobile production. Increased defense orders will add to industrial strength.

Investment in business equipment has been considered as a possible area for a sudden resurgence. This category of spending is generally not a leader from a recession, but perhaps this recession recovery will be an exception.

Good net export figures will help. Recently, net exports have been favorable to the U.S. Low exchange rates have stimulated exports.

The federal government will be a source of stimulus for the economy for some time to come while defense purchases are up. Concern soon will be refocused, however, on the size of the burgeoning federal deficit.

There has been some concern about money availability. Although money supply growth may be described as slack in recent months, this slackness is simply a reflection of an overall weakness in demand within the economy. Funds currently are available at relatively low interest rates.

One caution. You virtually can ignore the leading national economic indicators. They don't lead, and they don't indicate. Most economists believe it takes three months to five months of continued increases in the leading indicators to establish a new trend. By the time this occurs, a reversal is underway.

Nebraska Outlook

1990 was a good year for construction in Nebraska, as we have previously noted. According to the F.W. Dodge report, construction in January 1991 is down 14 percent compared to January 1990. Don't be alarmed. History shows that such a pattern can be reversed quickly.

There is fairly good news on the agricultural scene. Our previous forecast was that net farm income would decrease

Table IV
City Business Indicators
November 1990 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	3.4	-1.3
Alliance	3.1	58.2
Beatrice	3.4	53.5
Bellevue	0.5	-55.2
Blair	0.5	0.6
Broken Bow	3.0	1,083.6
Chadron	12.5	71.1
Columbus	5.4	4.8
Fairbury	1.9	-83.6
Falls City	8.1	37.6
Fremont	7.1	-30.5
Grand Island	5.0	6.9
Hastings	5.3	32.1
Holdrege	3.2	67.7
Kearney	4.9	27.6
Lexington	8.2	78.1
Lincoln	1.5	-6.2
McCook	1.4	-63.0
Nebraska City	-1.8	-70.9
Norfolk	8.4	-31.9
North Platte	9.4	202.4
Ogallala	8.7	-24.5
Omaha	0.7	-12.4
Scottsbluff/Gering	4.2	-12.4
Seward	5.8	11.1
Sidney	5.4	918.3
South Sioux City	-1.1	-43.9
York	9.9	194.3

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2) Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

Figure I
City Business Index
November 1990 Percent Change from Year Ago

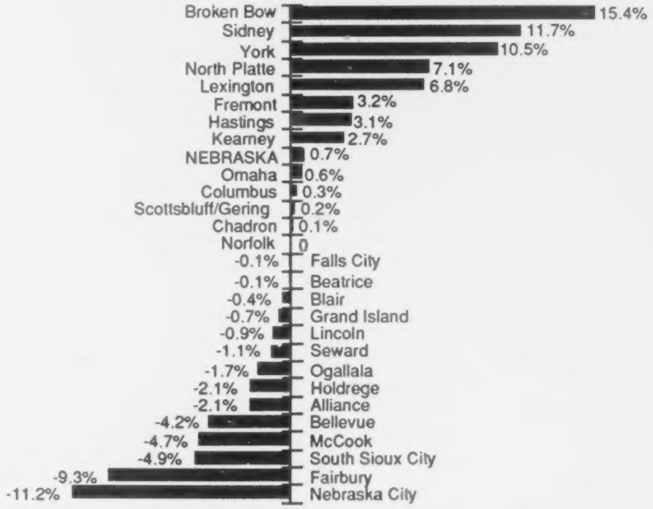
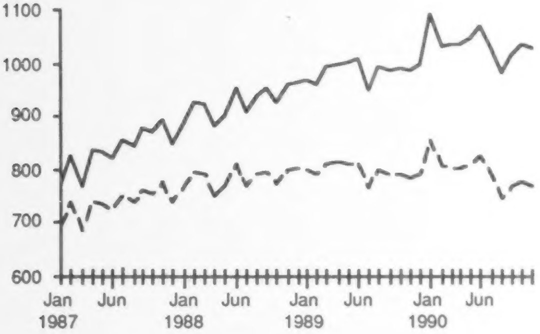


Table V
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)		City Sales (2) November 1990 (000s)	City Sales (2) % Change vs. Year Ago	Region Sales (2) November 1990 (000s)	Region Sales (2) % Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA		$878,177	4.9	$987,248	4.3	4.9
1	Omaha	299,527	9.0	362,112	6.8	2.8
	Bellevue	13,465	5.5	*	*	*
	Blair	4,500	5.1	*	*	*
2	Lincoln	120,099	3.6	136,330	3.6	5.3
3	South Sioux City	5,815	2.8	7,508	1.1	21.1
4	Nebraska City	3,763	-4.0	17,009	-0.9	8.4
6	Fremont	17,315	11.0	30,699	8.9	8.0
	West Point	3,214	13.7	*	*	*
7	Falls City	2,031	-5.8	8,560	0.7	7.9
8	Seward	4,148	-3.4	13,797	-5.7	5.7
9	York	7,210	9.0	15,465	6.6	4.6
10	Columbus	15,300	1.1	27,123	3.0	6.6
11	Norfolk	21,238	2.2	35,868	5.8	6.4
	Wayne	3,001	16.0	*	*	*
12	Grand Island	35,327	-1.0	48,330	0.4	1.7
13	Hastings	15,807	5.3	24,984	6.1	2.8
14	Beatrice	8,007	-2.1	17,359	1.7	10.3
	Fairbury	2,896	3.4	*	*	*
15	Kearney	19,969	5.2	27,217	6.1	4.9
16	Lexington	6,250	7.7	16,016	7.3	4.9
17	Holdrege	4,450	-7.6	7,500	-7.6	4.5
18	North Platte	15,972	0.9	20,017	1.4	6.2
19	Ogallala	5,002	-3.3	9,924	-5.9	2.5
20	McCook	8,226	5.6	11,461	3.4	6.1
21	Sidney	3,739	2.1	7,557	2.5	3.8
	Kimball	1,672	5.9	*	*	*
22	Scottsbluff/Gering	18,848	4.4	25,626	5.6	4.7
23	Alliance	4,658	-6.7	12,644	-5.1	3.0
	Chadron	2,270	-12.7	*	*	*
24	O'Neill	4,138	4.6	14,342	4.4	6.7
	Valentine	2,890	15.7	*	*	*
25	Hartington	1,759	23.8	8,577	11.2	8.7
26	Broken Bow	3,820	12.0	11,943	4.4	2.9

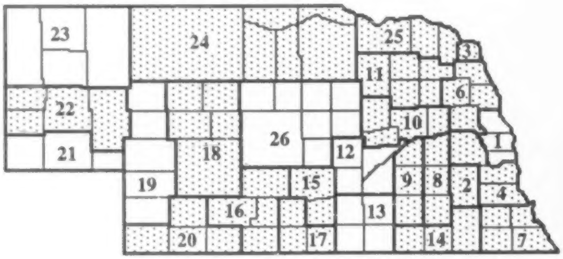
(1) See region map
(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales
*Within an already designated region
Compiled from data provided by the Nebraska Department of Revenue

Figure II
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure III
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

15 percent to 20 percent. Now there are some positive signs that may indicate our forecast was too pessimistic.

Oil prices have dropped from their October peaks to the same levels we experienced before the August 1 invasion of Kuwait. The Nebraska farmer may escape the impact of increased oil prices.

Corn prices have increased in recent weeks–a trend we hope will be sustained. Cattle prices remain good. Furthermore, Nebraska's February 1, 1991, cattle on feed figure of 2,350,000 head set a record for the state. Nebraska now is the number one state in cattle on feed. Nebraska and Texas frequently exchange the number one role.

In January, jobs saw a seasonal decrease, but January jobs levels for 1991 were still 4.7 percent higher than the January 1990 jobs levels. This figure is extremely high and compares well to figures in the 2.5 percent to 2.8 percent range that we have seen over the last two and a half years.

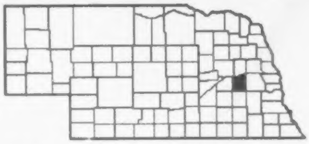
Retail sales continue to be slow. Nebraska's current retail sales figures reflect the drop in consumer confidence nationwide. Nevertheless, on a year-to-date basis through November, Nebraska's net taxable retail sales were 4.9 percent ahead of year ago levels in current dollar terms. That figure is slightly behind the corresponding increase in the Consumer Price Index (CPI) (see January 1991 *Business in Nebraska*, Table III).

In conclusion, we see no need to revise the economic projections for Nebraska that appeared in the February 1991 issue of *Business in Nebraska*. We still anticipate that the current national recession will affect the Nebraska economy only modestly.

County of the Month

Butler

David City—County Seat



License plate prefix number: 25

Size of county: 582 square miles, ranks 44th in the state

Population: 8601 in 1990 a change of -7.8 percent from 1980

Median age: 35.2 years in Butler County, 29.7 years in Nebraska in 1980

Per capita personal income: $14,592 in 1988, ranks 31st in the state

Net taxable retail sales ($000): $29,332 in 1989, a change of -1.7 percent from 1988; $27,832 during Jan-Nov. 1990, a change of 4.4 percent from the same period one year ago

Number of business and service establishments: 176 in 1988; 71.6 percent had less than five employees

Unemployment rate: 3.9 percent in Butler County, 3.1 percent in Nebraska for 1989

Nonfarm employment (1989):

	State	Butler County
Wage and salary workers	705,672	1,816
	(percent of total)	
Manufacturing	13.4%	19.3%
Construction and Mining	3.6	3.3
TCU	6.5	2.4
Retail Trade	18.5	17.0
Wholesale Trade	7.6	6.6
FIRE	6.8	3.6
Services	23.7	16.1
Government	19.9	31.7
Total	100.0%	100.0%

Agriculture:

Number of farms: 961 in 1987, 976 in 1982

Average farm size: 376 acres in 1987

Market value of farm products sold: $69.3 million in 1987 ($72,158 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Business
in
Nebraska

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Association for University Business & Economic Research

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How to Tell the Recession's Finished: An Economy Watcher's Guide

John S. Austin, Research Associate
UNL Bureau of Business Research

Just as it took time for economists to agree that the economy had entered a recession, it will take time before economists agree that the recession has ended. This article details some early signs that indicate a recovery is underway.

Economists often are pressed to state what a particular data series indicates about the nation's economic health. The single most appropriate indicator is change in Gross National Product (GNP). As a rule of thumb, a recession is determined by two or more consecutive quarters of decreasing real GNP. Unfortunately, quarterly GNP figures are not available for several months and are subject to frequent revisions.

An ideal leading index would detect future changes in GNP. The perfect indicator would be reported in a timely manner, would be available frequently enough to distinguish early changes in GNP, and would be highly reliable. Unfortunately, such an indicator does not exist. We are forced to look at several less-than-perfect indicators in our role as economic detective.

In searching for signs that the recession has ended, we must examine indicators associated with change. Large components of the economy, however, often are characterized by steady growth—the consumption of services is an example.

These large, steadily-growing components admittedly are important to the economy, but they are not helpful in detecting change. We often look at a series that is only a small part of the total picture, such as auto sales. The level of auto sales is a small part of total GNP, but a big part of the change in GNP.

We first will examine three series that are good predictors of future economic activity. We then will explore other data that provide good information on the current state of the economy, note commonly used indicators of questionable value, and comment on the index of leading indicators and the stock market, two frequently misused indicators. We briefly will discuss two broad measures of economic health.

Leading Indicators

A leading economic indicator provides information on future changes in the economy.

Consumer Confidence

There are two indexes of consumer confidence, one from the University of Michigan and one from the

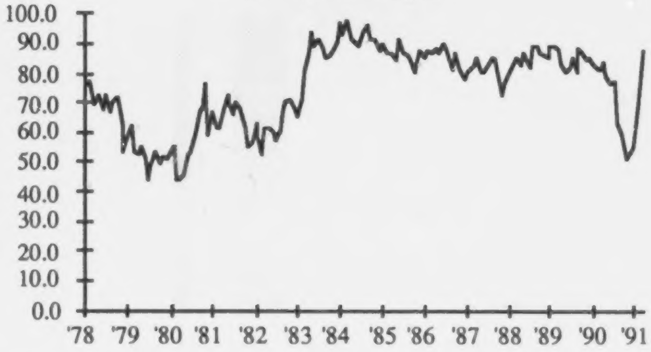
State Economic Scoreboard

Change from same month one year ago
See Review and Outlook for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (December) Constant $	↓ -0.8%	↓ -4.8%	↑ 2.5%
Nonmotor Vehicle Sales (December) Constant $	↓ -5.8%	↓ -9.0%	↓ -2.3%
Building Activity (December) Constant $	↓ -3.4%	↓ -11.3%	↑ 6.0%
Employment (February)	↑ 3.0%	↑ 3.3%	↑ 2.8%
Unemployment Rate* (February)	↑ 2.8%	↑ 2.6%	↑ 3.0%

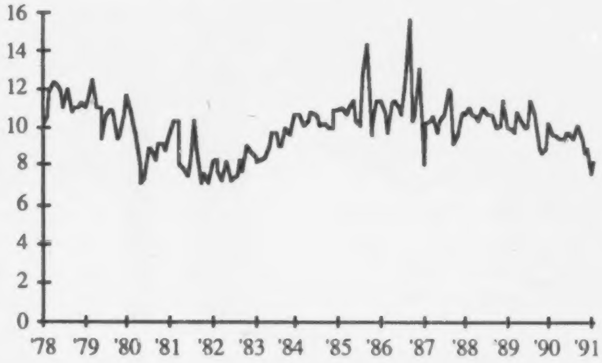
+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

Figure 1
Consumer Confidence Survey
University of Michigan



U.S. Dept. of Commerce, Bureau of Economic Analysis, Survey of Current Business. Shaded areas represent recessions

Figure 2
Auto Sales
(millions of units, SAAR)



Source: Survey of Current Business. SAAR = seasonally adjusted at annual rates. Shaded areas represent recessions

Conference Board. These indicators are consistent leading indicators of the economy. Each immediately identified the collapse in consumer confidence in August 1990 when Iraq invaded Kuwait (Figure 1). A collapse in consumer spending soon followed.

Both indexes are good short-term indicators of forthcoming changes in consumer spending. These indexes recently have reversed and are heading upward.

Automobile Sales

The auto sales level long has been used as a barometer of the overall strength of consumer spending. Automobile sales data are released shortly after the month has ended. The data are seasonally adjusted at annual rates—we can see quickly and easily whether there has been a real change from the previous month.

A drop in auto sales tends to lead a recession, while an increase in sales is associated with the end of a recession (Figure 2). The auto sales series is a consistent leading indicator and provides timely and accurate information on an industry vital to economic recovery.

Housing Starts

The single most volatile component of the investment sector is housing. The number of housing starts is a good indicator of future housing construction activity and of overall economic activity. Housing starts for the first few months of the year can be distorted by weather patterns, however; we must be cautious in using data from the first quarter.

Housing starts are presented in Figure 3. The overall downturn in housing in the current economic cycle started four years ago. A drop in housing starts can occur long before a downturn in the economy. The number of housing starts is a good leading indicator, but it may not pinpoint the timing of an upturn.

Coincident Indicators

A coincident indicator tells us where we currently are in the business cycle.

The Industrial Production Index

Industrial production is an important sector in the economy, but its long-term importance has been decreasing for some time. Like automobile sales, industrial production is a small but volatile component of GNP.

Although the industrial sector is small in employment, it is large in terms of value added to the economy. Value added is the net contribution of a sector above material input costs—the total of labor costs and profit.

The index of industrial production produced by the Federal Reserve Board is an indicator of overall industrial strength. The Industrial Production Index is available in a timely manner and is seasonally adjusted.

Industrial performance is not a leading indicator of future performance, however, but a coincident indicator of current period performance. In other words, it doesn't tell us where we are going, it simply tells us where we are in the business cycle.

Real Disposable Income

Real disposable income is personal income after federal taxes, adjusted for inflation. Real disposable income reveals changes in the ability of consumers to make purchases. It is a good indicator of current conditions.

Data on real disposable income accompany the personal income release. Personal income data are the focus of more media attention, but these data are not adjusted for tax changes or inflation. Real disposable income is an accurate and timely coincident indicator of economic activity.

Questionable Indicators

There are hosts of indicators not listed above. Some are worthwhile, but obscure. Others are used commonly, but are deficient . A common flaw is noise in the theoretical indicator. A noisy series contains random change that obscures the overall direction of the series.

A common cure for the noisy series is to use less frequent data. A monthly series may be noisy, while the quarterly version of the series may be more stable.

Ten Day Auto Sales Report

This is an up-to-the-minute report—auto sales are reported three times per month. The series is noisy and is not seasonally adjusted. Comparisons to a year ago are available, but it is difficult to tell if current month's sales are better or worse than preceding month's sales.

Department Store Sales

Another timely series, but one that provides information only on sales of large chain stores, is the department store sales report. One necessary adjustment is an adjustment to same store data. This manipulation removes the bias of sales growth caused by expansion of the number of outlets. The report is of interest to members of the industry, but must be used cautiously as an overall measure of economic performance.

Retail Sales (BEA)

Another measure of retail activity is the U.S. Department of Commerce retail sales report. This seasonally adjusted series is more comprehensive than the department store sales report. The series should be adjusted for inflation. The retail sales report is not a consistent indicator, however, so the series has limited value in interpreting economic conditions.

Nonresidential Investment

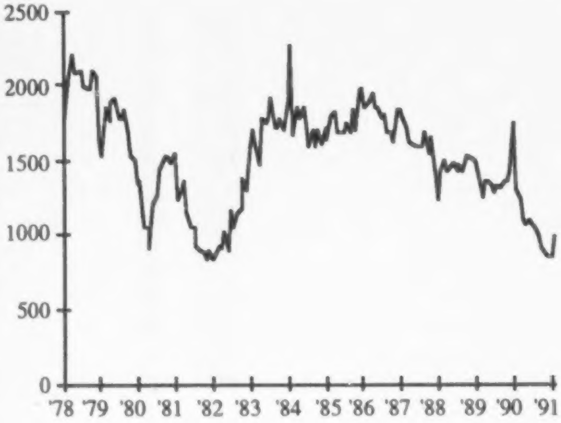
Investment is a key building block in the economy. Therefore, many persons think that nonresidential investment is a leading indicator. It isn't. There are two major parts of nonresidential investment: plant (structures) and equipment.

Investment in durable equipment is either coincident with the business cycle or lags the cycle, depending on the stage of the cycle. Investment in plant is a consistent lagging indicator.

Manufacturers' New Orders

The orders series is a leading indicator, but noise in the series makes underlying trends hard to follow. The companion series for unfilled orders is a consistent leading indicator that is less noisy.

Figure 3
Housing Starts
(millions of units, SAAR)



Source: Survey of Current Business. SAAR = seasonally adjusted at annual rates. Shaded areas represent recessions

Two Commonly Misused Indicators

The Index of Leading Indicators

One can be cynical discussing the index of leading indicators. The old adage "it doesn't lead, and it doesn't indicate" contains a germ of truth. There are several false signals given by the index, but the index is cited widely and repeatedly as an important gauge of future activity.

Information in the index is stale by the time it is released. Even those who release the leading indicators argue that the index must change direction for three to five consecutive months before a new trend can be identified.

The value of the leading indicators is the index's component parts. We have mentioned some of these. More information is contained in the BEA's monthly publication, *The Survey of Current Business*.

The Stock Market

The biggest problem with many stock market indexes is misuse. The daily or hourly stock market index series is simply too noisy to have any value as a leading economic indicator. A month's average of the 500 stock index is a consistent leading indicator and contains valuable information about the future.

Unfortunately, no one focuses on the month's average. Instead projections of the future are based on the forecaster's latest look at the index. A parallel would be to use one day's newspaper headlines to make a ten year forecast. The day-to-day change in the stock market is not a reliable indicator of future economic conditions, but long-run average stock market levels may be useful.

Measures of Economic Health

Measures of economic health are not leading or coincident indicators *per se*, but are data that provide useful information on the state of the economy.

Inflation Rates

Because it is timely and covers a broad range of goods and services, the most useful overall measure of inflation is the Consumer Price Index (CPI). Because price changes tend to be somewhat sticky, inflation rates are not particularly good economic indicators of future activity.

Inflation does provide good information on the overall status of the economy. High inflation rates are associated with the start of recession. Inflation rates tend to remain high in the early stages of a recession and, thus, have little value as a leading indicator. Low inflation rates often are associated with high rates of real growth.

Interest Rates

Similar to inflation rates, interest rates are not good leading indicators, although interest rates also yield useful information about the general health of the economy. High interest rates are linked with the start of recessions, but may remain high after the recession is underway. Thus, changes in interest rates may lag changes in the economy.

Interest rates can be useful in determining the direction of monetary policy. The federal funds rate, a short-term interest rate on loans between banks, is a good barometer of Federal Reserve Policy. Fed policy determines the supply of money to the economy. Money is the grease that keeps the economic wheels turning.

Although the federal funds rate may be of little relevance to the average individual, the Federal Funds Rates tends to be tied to other interest rates. Changes in the federal funds rate can lead to changes in other interest rates.

John's Favorite Indicators

Leaders

Consumer Confidence
Auto Sales
Housing Starts

Coincident

Industrial Production
Real Disposable Income

Measures of Economic Health

Inflation Rates
Interest Rates

Note: Leading indicators tell now what may happen in the future. Coincident indicators tell where we are now. Measures of economic health provide more information on the economy and must be viewed in the overall context of the business cycle.

Summary

How do we know when the recession is over? Unfortunately, the answer is not straightforward. Determining the current state of the business cycle is as much an art as a science.

My recommended method is to monitor the leading indicators I have suggested and any others you know to be good leading indicators. When they signal that an upturn is coming, monitor the coincident indicators. Remember that leading indicators may rise long before the economy does and that not all leading indicators will gain at the same time. Similarly, not all coincident indicators will change in the same month.

After the economy has turned the corner, GNP data can be used to verify the upturn. At about the same time, the index of leading indicators may register continuing increases.

We have seen a dramatic one month rise in consumer confidence and housing starts. Auto sales have yet to respond. I conclude that we are receiving early signals that a recovery is forthcoming. By the time this report reaches you, there should be even more confirmation of the early indicators.

In contrast to the good news from some of the leading indicators, it is likely that the first quarter 1991 GNP report at the end of this month will verify the old news of a continued downturn. At this point, it is an even bet whether second quarter 1991 GNP will increase or decrease. We will keep you posted in the "Review and Outlook" column of *Business in Nebraska*.

On a more personal level, determining whether a recession or recovery has occurred is easy. If we remain employed and our income is secure, then we are in a period of prosperity. If we become unemployed and our financial situation deteriorates quickly, we are in a personal recession.

It is often hard for an individual to see a link between a personal recession and the national economic cycle. The overall tendency of employers to add or subtract from their labor force, however, can and will be influenced by general economic conditions.

Of Course(s)

Merlin W. Erickson, Research Associate
UNL Bureau of Business Research

The National Golf Foundation (NGF) recently reported that approximately 600 new golf courses were completed across the nation during the past two years. (290 opened in 1989, and 281 opened during January-November 1990.) This brings the total number of courses in the United States to 13,951.

The number of golf courses in Nebraska totals 173. The West North Central states (WNC) have a total of 1,670 courses. The West North Central region includes Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

The following table shows the number of courses, by various categories, and the number of holes for the U.S., WNC, and Nebraska. The WNC states and Nebraska have more than twice as many 9 hole courses as 18 hole courses. The U.S. has a higher rate of 18 hole courses.

Comparing the number of courses and holes with the 1990 population for each of the three areas shows that Nebraskans have about twice as many golf courses per 10,000 population as the nation as a whole. Likewise, the number of holes per 10,000 residents for Nebraska exceeds the same measure for the West North Central states and for the nation. The relative abundance of golfing opportunities in Nebraska may be a positive boost for the state's tourism program.

In addition to the above, 558 courses were under construction and an additional 773 courses were in the planning stage across the U.S. during 1990. Included in these national totals are golf courses under construction or in planning stages for Nebraska.

NGF research shows that the demand for golf in the U.S. is likely to require upwards of 400 new courses per year though the 1990s. That's at least one new course per day for the next ten years.

Table 1
Golf Courses and Holes

	Nebraska		WNC		U.S.	
	Courses	Holes	Courses	Holes	Courses	Holes
Item:						
Total	173	1,971	1.670	19,737	13,951	201,213
9 Hole	127	1,143	1,147	10,323	5,545	49,905
18 Hole	46	828	523	9,414	8,406	151,308
Regulation	147	1,170	1,503	18,027	12,403	183,168
Executive	14	144	88	936	808	9,882
Par 3	12	117	79	774	740	8,163
Per 10,000 Population	1.10	12.5	1.00	11.9	0.56	8.1

Women–Owned Businesses are Flourishing

Merlin W. Erickson, Research Associate
UNL Bureau of Business Research
Lisa Valladao
UNL Bureau of Business Research

About 30 percent of the nation's businesses were owned by women in 1987 according to a survey by the U.S. Department of Commerce, Bureau of the Census. The number of women–owned businesses in the U.S. totalled 4.1 million in 1987, up from 2.6 million in 1982, a jump of 57 percent. This increase was four times the 14 percent growth for all businesses from 1982 to 1987.

In 1987 women-owned businesses had receipts of nearly $280 billion, about 14 percent of the U.S. total.

The Census Bureau survey included individual proprietorships, partnerships, and Subchapter S corporations and excluded regular corporations. Corporate ownership changes often and, therefore, is difficult to determine in terms of gender.

The number of businesses in Nebraska owned by women climbed from 22,746 in 1982 to 32,285 in 1987, an increase of nearly 42 percent. In 1987, women–owned businesses accounted for 31 percent of all businesses in the state.

Sales for women–owned businesses in Nebraska more than doubled from 1982 to 1987. Sales and receipts to women–owned businesses amounted to about $1.6 billion in 1987, 14 percent of the total for all firms.

The number of women–owned firms in Nebraska with paid employees increased 75 percent, and the number of employees increased 90 percent from 1982 to 1987. Payrolls increased more than 200 percent, to $234 million, during the same period. Firms with paid employees contributed approximately 83 percent of the total sales of women–owned businesses in Nebraska.

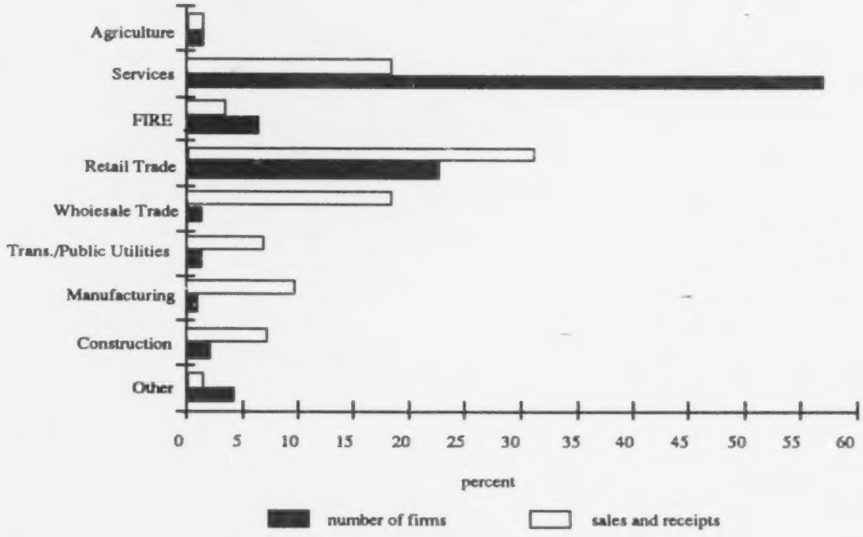
Firms owned by women generally are small and tend to be concentrated in personal and business services and retail trade. In 1987, 57 percent of Nebraska firms owned by women were classified as service businesses. These firms accounted for 19 percent of sales.

A low sales ratio does not necessarily imply low profitability. Service-oriented businesses tend to have minimal operating costs compared to other industries. Overall profitability may be considerably higher than the sales numbers indicate.

Twenty-three percent of women–owned firms in Nebraska were classified as retail trade. These retail firms accounted for 32 percent of sales. Although only 2 percent were classified as wholesale trade, these firms accounted for 19 percent of total sales. Figure 1 shows the distribution of women–owned businesses in Nebraska by industry.

Not surprisingly, the largest numbers of women–owned firms were located in the most populous counties, Douglas, Lancaster, and Sarpy.

Figure 1
Women-Owned Businesses by Industry in Nebraska, 1987



FIRE = Finance, Insurance, and Real Estate

Review and Outlook

John S. Austin, Research Associate
UNL Bureau of Business Research

The National Outlook
Stage Set for Recovery

Recent news indicates that conditions are ripe for the start of an economic recovery. The 1990-1991 recession will be short and shallow, barring unforeseen events in the Middle East.

Perhaps one of the biggest positive signs in recent weeks is the return of consumer confidence. The Conference Board Index in March rose to 81.0, up from 59.4 in February. This increase of 36 percent is the largest single jump in the history of the index. The University of Michigan survey also showed a large increase in February. Just as the onset of the drop in consumer confidence coincided with the onset of the Middle East war, the recovery in consumer confidence coincides with the end of the Middle East crisis.

Adjusted CPI for Nebraska's Taxable Retail Sales

In this issue of *Business in Nebraska*, we are initiating a new price index for Nebraska's net taxable retail sales. The index was developed by taking weighting patterns from the national Consumer Price Index (CPI) and deleting items that are not taxed in Nebraska. The result is a more representative index for Nebraska's taxable retail sales. This adjusted CPI was used to calculate constant dollar retail sales, as displayed in Figure II.

We will present more details on the adjusted CPI in upcoming issues of *Business in Nebraska*.

The boom in consumer confidence has not yet affected automobile sales. Sales through mid-March are still consistently below year ago levels.

The returning troops may be a source of economic activity. Those in reserves will be returning to their civilian jobs. Those who have been stationed in the desert for six months likely will have ample cash reserves that can be translated into purchases of all kinds, perhaps including new cars.

We also had good news in housing in February. Housing starts were up 16.4 percent, although the level of housing starts remains below 1,000,000 units. It is too soon to label this a trend, especially given that housing start figures for the early months of the year must be viewed cautiously. Nevertheless, conditions look good for sustained increases in housing starts. Incomes have not suffered that much during the recession, and mortgage rates are hovering near 9.5 percent, the lowest rate in four years.

Although the stage may be set for a recovery in single family housing, it may not occur in the multifamily housing area. Problems remain from the 1986 tax law, Investment housing now is required to stand on its ability to produce rental income rather than on its status as a tax dodge. There will be exceptions for specific localities where demand for housing is high and rents more than compensate construction costs.

There is further good news in the inflation area. The Consumer Price Index (CPI) in February rose a scant 0.2 percent, while the Producer Price Index (PPI) fell 0.6 percent. Both of these indexes reflect continued drops in energy costs. On a more pessimistic note, the core rate of inflation (excluding food and energy) measured by the CPI increased 0.7 percent in February. Most likely, nonenergy businesses are passing some of their increased costs to consumers.

Monetary conditions also remain good. The federal funds rate is now at 6.0 percent, indicating that the Federal Reserve wants to stimulate the economy.

Table I
National Indicators

	Annual		Quarterly (SAAR)				
	1989	1990	1989:IV	1990:I	1990:II	1990:III	1990:IV
Real GNP (% change)	2.5	0.9	0.3	1.7	0.4	1.4	-1.6
Real Consumption (% change)	1.9	1.0	-0.8	1.1	0.2	2.7	-3.4
Housing Starts (millions)	1.3	1.2	1.3	1.4	1.2	1.1	1.0
Auto Sales (millions)	9.9	9.5	8.7	9.7	9.5	9.7	8.9
Interest Rate (90 day T-bill)	8.1	7.5	7.6	7.8	7.8	7.5	7.0
Unemployment Rate (%)	5.3	5.5	5.3	5.3	5.3	5.6	5.9
Money Supply, M2 (% change)	3.7	5.2	7.4	6.3	4.0	3.0	2.3
Industrial Production Index (1987=100)	108.1	109.2	108.1	108.3	109.4	110.5	108.4

NOTE: SAAR—seasonally adjusted at annual rates
Source: Bureau of Economic Analysis

Table II
Employment in Nebraska

	Revised January 1991	Preliminary February 1991	February % Change vs. Year Ago
Place of Work			
Nonfarm	736,500	743,599	4.8
Manufacturing	100,486	100,809	4.4
Durables	49,152	49,110	2.0
Nondurables	51,334	51,699	6.8
Mining	1,394	1,463	14.2
Construction	25,074	25,746	14.8
TCU*	45,814	45,847	0.4
Trade	187,278	186,334	3.0
Wholesale	51,019	50,878	-2.2
Retail	136,259	135,456	5.1
FIRE**	49,076	49,110	2.0
Services	182,916	186,122	8.2
Government	144,462	148,168	4.0
Place of Residence			
Civilian Labor Force	838,825	852,207	3.2
Unemployment Rate	2.7	2.8	

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table III
Price Indices

	February 1991	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	134.8	5.3	5.5
Commodities	125.7	4.2	4.7
Services	144.5	6.3	6.2
Producer Price Index (1982 = 100)			
Finished Goods	121.2	3.2	3.5
Intermediate Materials	115.5	2.7	2.7
Crude Materials	104.4	-2.3	2.2
Ag Index of Prices Received (1977 = 100)			
Nebraska	156	-4.3	-3.7
Crops	111	-12.6	-12.5
Livestock	185	0.0	0.5
United States	144	-4.6	-5.2
Crops	122	-8.3	-8.6
Livestock	166	-1.8	-2.6

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

Evidence that we continue in a recession comes from the Industrial Production Index which fell 0.8 percent in February. The Industrial Production Index has decreased consistently since the Iraqi invasion in August.

The unemployment rate has mirrored the Industrial Production Index over the last several months. The unemployment rate rose from 6.2 percent in January to 6.5 percent in February. The unemployment rate is a full percentage point higher than in July 1990.

Given the low levels of automobile sales, automobile production plans have been lowered for the second quarter of this year. Domestic auto producers plan to produce 14 percent fewer cars in the second quarter of this year than they did in 1990.

In conclusion, we are not out of the woods yet, but the rebound in consumer confidence implies that a rebound in consumer spending and an overall recovery is forthcoming.

The Nebraska Outlook

Retail sales in December remained troublesome. We have argued that the one area where the national recession has affected Nebraska is retail sales. The December figures support this thesis. For the state as a whole, total net taxable retail sales dropped 1.3 percent in December (Table V). Nonmotor vehicle sales fell 1.5 percent in December. For the year as a whole, net taxable retail sales increased 4.3 percent. This level of increase, however, trailed the overall inflation rate.

In Figure II, we display constant dollar retail sales using a newly constructed consumer price index for the state of Nebraska. Seasonally adjusted retail sales in constant dollar terms in the second half of the year were well below constant dollar sales in the first half of the year. Two spikes are evident, one in January and one in June. December constant dollar retail sales were at the lowest level for the entire year.

It has been suggested that we may have witnessed some shifting of sales from December into November. The data presented in Figure II for seasonally adjusted constant dollar sales, however, suggests that November sales levels were part of an overall softness for the second half of the year. The December drop appeared to be a departure from even these lower levels.

Nebraska's unemployment rate remains the envy of the nation. In January, Lincoln's unemployment rate of 2.0 percent was the lowest of all reported metropolitan areas. Lincoln's unemployment rate crept up to 2.3 percent in February. For the state as a whole, unemployment in February stood at 2.8 percent, well under half of the nation's unemployment rate of 6.5 percent.

The rate of increase in jobs remains high. The jobs increase in February over its year ago level was 4.8 percent (Table II), a figure slightly above the blistering pace of 4.7 percent set in January. Job growth on a year–to–year basis has been a very satisfactory 2.5 percent to 2.8 percent for a long while. The recent, more dramatic gains will be difficult to maintain.

In conclusion, Nebraska appears to have weathered the recession of 1990-1991 with little impact. Job growth has been at levels well above those of the nation. As a result, unemployment rates have remained low. The only area where we have seen any evidence of a recession is net taxable retail sales. We hope to see a rebound in retail sales as the recovery in consumer confidence works its way through the Nebraska economy.

Correction

In the March 1991 issue of *Business in Nebraska*, we erroneously assigned the Small Business Administration (SBA) to the U.S. Department of Commerce. Glenn Davis, district director of Nebraska's one SBA office in Omaha, assures us that the SBA remains an independent agency of the federal government. We apologize for the error.

If you would like to contact the Nebraska office of the SBA, their address is:

Small Business Administration
11145 Mill Valley Road
Omaha, NE 68154

Table IV
City Business Indicators
December 1990 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	3.9	-3.4
Alliance	4.0	53.9
Beatrice	3.3	6.7
Bellevue	1.3	-51.2
Blair	1.3	41.0
Broken Bow	2.0	1254.2
Chadron	11.5	284.8
Columbus	5.3	13.3
Fairbury	1.0	-80.0
Falls City	7.9	4.6
Fremont	7.0	-21.1
Grand Island	5.8	8.0
Hastings	5.5	-7.0
Holdrege	2.9	43.8
Kearney	5.3	8.8
Lexington	7.8	78.2
Lincoln	2.0	4.3
McCook	1.5	-28.2
Nebraska City	-0.9	-64.9
Norfolk	9.1	-30.6
North Platte	2.7	213.9
Ogallala	8.9	-36.2
Omaha	1.3	-18.0
Scottsbluff/Gering	3.9	-11.2
Seward	5.7	-21.1
Sidney	5.2	994.5
South Sioux City	-0.9	-56.5
York	10.0	137.7

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2) Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

Figure I
City Business Index
December 1990 Percent Change from Year Ago

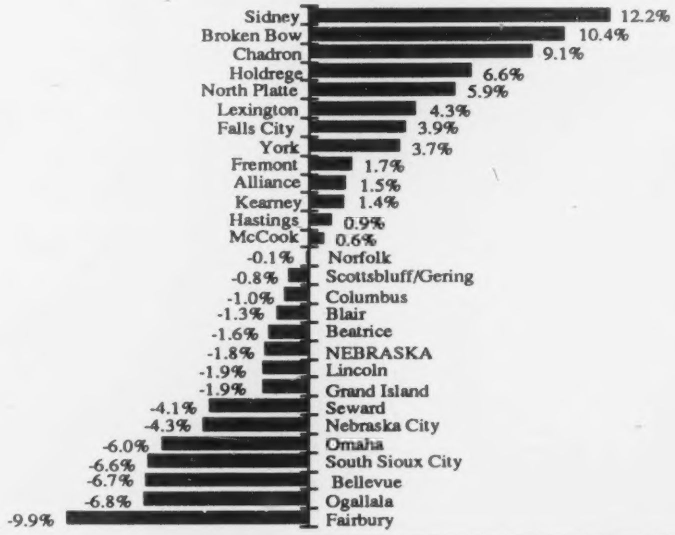
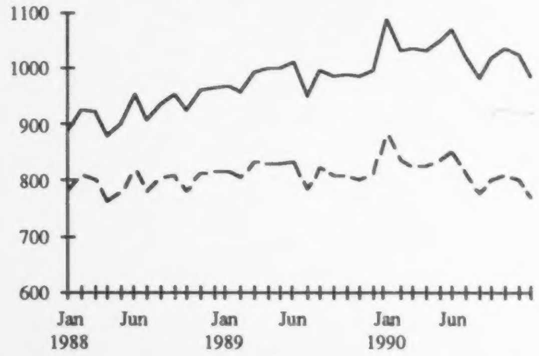


Table V
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)		City Sales (2)		Region Sales (2)		
		December 1990 (000s)	% Change vs. Year Ago	December 1990 (000s)	% Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA		$1,107,917	-1.5	$1,203,174	-1.3	4.3
1	Omaha	377,972	-6.9	448,326	-6.2	1.9
	Bellevue	17,805	-2.5	*	*	*
	Blair	5,619	-1.8	*	*	*
2	Lincoln	143,423	-0.5	158,115	-0.5	4.7
3	South Sioux City	7,004	1.5	8,692	1.2	19.0
4	Nebraska City	4,906	9.5	20,581	6.9	8.2
6	Fremont	20,091	5.9	34,467	4.6	7.6
	West Point	3,697	6.0	*	*	*
7	Falls City	2,955	7.1	11,097	9.7	8.1
8	Seward	5,242	-6.6	16,087	-4.5	4.7
9	York	7,970	-5.1	16,748	-5.4	3.6
10	Columbus	18,720	-3.0	32,090	1.8	6.1
11	Norfolk	25,371	0.9	41,511	1.8	5.9
	Wayne	3,689	12.5	*	*	*
12	Grand Island	42,848	-4.9	55,958	-6.2	0.9
13	Hastings	20,174	3.8	30,294	0.9	2.7
14	Beatrice	10,329	-1.6	21,252	-0.2	9.2
	Fairbury	3,632	0.4	*	*	*
15	Kearney	25,147	3.4	32,953	2.1	4.6
16	Lexington	7,946	2.0	18,719	2.4	4.7
17	Holdrege	5,857	15.0	9,234	8.4	4.9
18	North Platte	20,963	4.7	25,517	5.7	6.2
19	Ogallala	5,075	-14.0	11,426	-0.1	2.3
20	McCook	10,432	10.2	14,156	10.6	6.5
21	Sidney	4,715	2.6	9,418	9.3	4.3
	Kimball	1,989	7.6	*	*	*
22	Scottsbluff/Gering	29,248	2.1	30,732	1.1	4.3
23	Alliance	6,372	0.8	16,149	2.2	2.9
	Chadron	3,443	0.7	*	*	*
24	O'Neill	5,092	-5.6	16,500	1.4	6.2
	Valentine	3,559	15.8	*	*	*
25	Hartington	2,193	23.3	9,617	3.1	8.2
26	Broken Bow	4,251	-0.9	12,847	-3.5	2.3

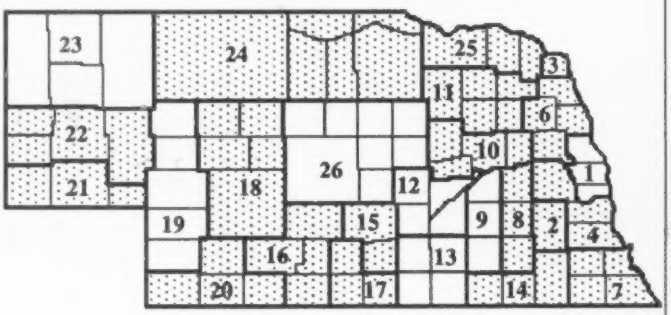
(1) See region map
(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales
*Within an already designated region
Compiled from data provided by the Nebraska Department of Revenue

Figure II
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure III
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

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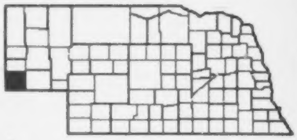
County of the Month

Kimball



Kimball—County Seat

License plate prefix number: 71
Size of county: 954 square miles, ranks 19th in the state
Population: 4,108 in 1990, a change of -15.9 percent from 1980
Median age: 32.0 years in Kimball County, 29.7 years in Nebraska in 1980
Per capita personal income: $17,155 in 1988, ranks 10th in the state
Net taxable retail sales ($000): $23,557 in 1989, a change of -8.6 percent from 1988; $25,732 during January through December 1990, a change of +9.2 percent from the same period one year ago
Number of business and service establishments: 178 in 1988; 66.9 percent had less than five employees
Unemployment rate: 3.4 percent in Kimball County, 3.1 percent in Nebraska for 1989
Nonfarm employment (1989):

	State	**Kimball County**
Wage and salary workers	705,672	1,404
	(percent of total)	
Manufacturing	13.4%	12.3%
Construction and Mining	3.6	11.7
TCU	6.5	6.6
Retail Trade	18.5	18.4
Wholesale Trade	7.6	6.6
FIRE	6.8	4.0
Services	23.7	10.8
Government	19.9	29.6
Total	100.0%	100.0%

Agriculture:
Number of farms: 348 in 1987, 344 in 1982
Average farm size: acres 1,531 in 1987
Market value of farm products sold: $17.3 million in 1987 ($49,620 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Business in Nebraska

PREPARED BY BUREAU OF BUSINESS RESEARCH
Association for University Business & Economic Research

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Prepared by the Bureau of Business Research, 200 College of Business Administration,
University of Nebraska-Lincoln, Lincoln, NE 68588-0406, 402/472-2334

School Spending—How Does Nebraska Compare?

Lisa Valladao
UNL Bureau of Business Research

Nebraska's state government spent $169 per capita on elementary and secondary education in fiscal year 1987, 11.8 percent of total state government expenditures. In comparison, the 1987 U.S. average state educational expenditure per capita was $350, 18.6 percent of the total.

Iowa, $347 per capita (19.4 percent), and Kansas, $322 per capita (21.9 percent), spent considerably more on elementary and secondary education than did Nebraska. South Dakota spent slightly more in dollar terms ($183 per capita), but less in percentage terms (10.1 percent).

Per capita expenditure analysis reveals many striking comparisons. This article also will focus on the three traditional revenue sources for elementary and secondary education: local, state, and federal funds.

From 1920 to 1979 local jurisdictions provided most of the revenue for elementary and secondary education in the U.S. In 1979 state funding surpassed local funding. Federal funding was consistently low through 1989, ranging from 6.2 percent to 10.0 percent. Federal funds typically are earmarked for specific programs such as Head Start, Job Corps, USDA's child nutrition program, overseas dependents schools, education for the handicapped, and school improvement programs.

Nebraska relies more heavily on local sources of revenue for education than do neighboring states or the nation. From 1985 to 1989 Nebraska schools received 70.2 percent of total educational revenues from local sources, 23.2 percent from state revenues, and 6.6 percent from federal revenue.

In contrast, the U.S. average for 1985 to 1989 was 44.8 percent local revenues, 48.7 percent state revenues, and 6.4 percent federal revenues. Figure 1 shows the relative mixture of local, state, and federal educational funding for the U.S., Nebraska, Iowa, Kansas, and South Dakota from 1985 to 1989.

The only state with a higher percentage of educational funding from local sources than Nebraska is New Hampshire. From 1985 to 1989 local sources provided 90.0 percent of New Hampshire's total educational revenue, on average.

The state least reliant on local sources is Hawaii which received only 0.6 percent of its educational revenues from 1985 to 1989 from local sources, on

State Economic Scoreboard

Change from same month one year ago
See Review and Outlook for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (January) Constant $	↓ -23.0%	↓ -29.8%	↓ -18.6%
Nonmotor Vehicle Sales (January) Constant $	↓ -5.7%	↓ -8.2%	↓ -2.9%
Building Activity (January) Constant $	↓ -7.9%	↓ -12.6%	↓ -1.1%
Employment (March)	↑ 2.6%	↑ 3.0%	↑ 2.2%
Unemployment Rate* (March)	↑ 2.8%	↑ 2.5%	↑ 3.1%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

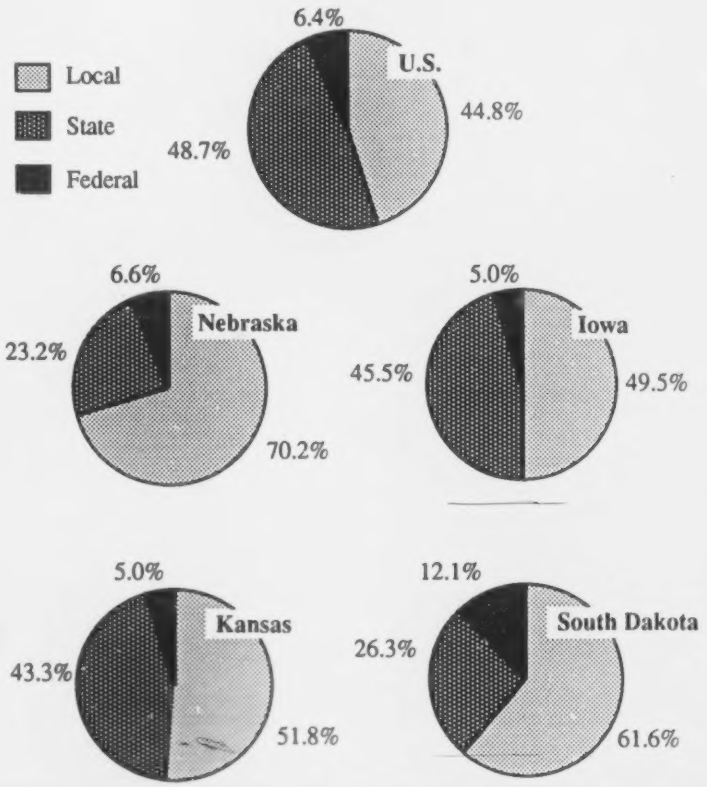
average. Most of Hawaii's educational revenues (88.0 percent) were provided by the state.

State government per capita expenditures vary widely. In terms of total per capita educational expenditures from all sources, however, states are more homogeneous. Nebraska's total per capita educational expenditures were $751, 6.4 percent more than the U.S. average in 1987. Iowa spent $780, Kansas spent $759, and South Dakota spent $695 per capita from all revenue sources in 1987.

Over the last two decades expenditures per pupil (excluding capital expenditures) in public schools have increased substantially more than has the rate of inflation, although the increase in expenditures has varied considerably among the states. From 1970 to 1988 Utah increased its expenditures per pupil only 27.8 percent, while Alaska expanded its per pupil expenditures over 130.0 percent (in constant 1989 dollars).

The U.S. average per pupil bill increased from $2,609 in 1970 to $4,653 in 1988, a jump of 78.3 percent. Expenditures per pupil in Nebraska increased 74.7 percent over the period, from $2,477 to $4,327. The same pattern was evident in Iowa, Kansas, and South Dakota from 1970 to 1988. The National Center for Education Statistics forecasts that expenditures per pupil will continue to rise through 1994.

Figure 1
Educational Revenues by Source
1985 to 1989



Educational expenditures can be split into two functions or classes: direct instructional expenditures and support services. Direct instructional expenditures cover interaction between students and teachers and include salaries, employee benefits, and purchased instructional services. Support services, or noninstructional expenditures, comprise general and school administration, student and staff support services, improvement of instruction, libraries, business operations, facilities maintenance, food services, student transportation, and interscholastic athletics.

From 1985 to 1989 Nebraska spent an average of 63 percent of its total educational expenditures on instruction, slightly more than the national average of 60.5 percent. Iowa spent 58.6 percent, Kansas spent 58.3 percent, and South Dakota spent 60.2 percent of total educational expenditures on instruction from 1985 to 1989.

Any survey of revenues and expenditures, however helpful to policy makers in tracking the flow of resources, does not address the most vital issue—what impact the resources have on the quality of education and the learning process.

References

The Condition of Education 1990, Volume 1, Elementary and Secondary Education. U.S. Department of Education, National Center for Education Statistics

Digest of Education Statistics, 1987 and 1989, U.S. Department of Education, National Center for Education Statistics

Federal Support for Education: Fiscal Years 1980 to 1989. Survey Report August 1990, U.S. Department of Education, National Center for Education Statistics

Key Statistics on Public Elementary and Secondary Education Reported by State and by Regional, Locale, and Wealth Clusters, 1987-1988. Survey Report December 1990, U.S. Department of Education, National Center for Education Statistics

The National Public Education Financial Survey, September 1990, U.S. Department of Education, National Center for Education Statistics, Common Core of Data

Public Elementary and Secondary Current Expenditures: 1987-1988 to 1993-1994, Targeted Forecast, September 1990, U.S. Department of Education, National Center for Education Statistics

Public Elementary and Secondary State Aggregate Nonfiscal Data, by State, for School Year 1988-1989; and School Revenues and Current Expenditures for Fiscal Year 1988, E.D. Tabs, March 1990, National Center for Education Statistics, U.S. Department of Education, Office of Educational Research and Improvement

Thank You

The Bureau staff appreciates all of you who responded to our mailing list update in the April issue. Not only did we receive address corrections, but we also got a large number of compliments and suggestions for future publications. Thank you.

We are always delighted to receive your letters. Please feel free to let us know how you think *Business in Nebraska* can be improved.

County Income Changes

Merlin W. Erickson and David D. DeFruiter
UNL Bureau of Business Research

Three counties had an increase greater than 20 percent in personal income from 1988 to 1989. Arthur had the largest increase (23.2 percent), followed by Keya Paha (21.7 percent) and McPherson (20.2 percent). Each of these counties also ranks in the top ten among all county per capita income estimates, according to a recent release by the Bureau of Economic Analysis, U.S. Department of Commerce.

These income growth rates contrast with their population rank. Arthur has the smallest population in the state with 462 residents, according to the 1990 U.S. Census of Population. McPherson had the second smallest population (546 residents), and Keya Paha ranked the tenth smallest with a population of 1,029.

Hamilton is the only county with a decrease in per capita personal income from 1988 to 1989, a decline of only one-tenth of one percent. Chase showed practically no change in income during the period. The average annual growth rates for 1980-1988 also are shown for comparison in the table below. In a subsequent issue of *Business in Nebraska*, we will take a more detailed look at county level income.

Wheeler had the highest per capita income at $32,706, a rank this county has held each year since 1985. Perkins is ranked in second place at $23,700 per capita in personal income. Thurston is ranked in last place among the 93 counties with a per capita personal income of $9,673; however, this was a 13.5 percent increase over 1988.

County income estimates (especially for counties with small populations) should be used with some caution, as these estimates may be rough approximations.

	Average Annual Change in Per Capita Personal Income 1988-89 (%)	Average Annual Change in Per Capita Personal Income 1980-88 (%)	Per Capita Personal Income 1989 ($)	Per Capita Personal Income 1989 (rank)	Population 1990 (no.)	Population 1990 (rank)
U.S.	6.6	6.6	17,594		/1	
Nebraska	6.7	6.0	15,685		/1	
NE Metro	6.5	5.7	16,755		/1	
NE Nonmetro	6.9	6.2	14,721		/1	
Arthur	23.2	7.2	18,140	8	462	93
Keya Paha	21.7	12.9	17,830	10	1,029	83
McPherson	20.2	7.3	18,082	9	546	92
Loup	17.5	5.7	13,725	76	683	90
Blaine	16.5	6.5	15,040	39	675	91
Grant	16.0	4.3	15,794	27	769	89
Thomas	15.7	2.2	13,972	67	851	87
Cherry	14.8	2.6	14,378	63	6,307	51
Dixon	13.7	7.1	12,887	84	6,143	53
Thurston	13.5	5.6	9,673	93	6,936	46
Hooker	13.2	1.5	12,190	91	793	88
Wayne	13.1	5.5	12,620	87	9,364	32
Pawnee	13.0	8.3	13,688	78	3,317	71
Rock	12.3	7.6	15,162	37	2,019	79
Boyd	11.1	5.4	12,436	89	2,835	74
Otoe	11.0	6.4	14,572	55	14,252	20
Nemaha	10.5	7.1	14,661	52	7,980	40
Cedar	10.4	7.5	12,338	90	10,131	26
Dawes	10.3	4.5	13,728	75	9,021	34
Brown	10.2	6.0	15,665	30	3,657	69
Garden	10.1	5.1	20,054	5	2,460	76
Hitchcock	10.1	6.9	15,630	31	3,750	67
Sheridan	10.1	5.7	15,554	34	6,750	47
Dakota	10.0	4.5	13,880	69	16,742	16
Nuckolls	9.9	8.2	13,832	71	5,786	55
Cuming	9.7	5.5	14,631	53	10,117	27
Custer	9.6	8.0	15,718	28	12,270	24
Washington	9.5	6.5	15,686	29	16,607	17
Wheeler	9.3	19.6	32,706	1	948	84
Holt	9.3	7.8	14,592	54	12,599	23
Colfax	8.9	6.1	13,983	66	9,139	33
Furnas	8.8	9.0	16,028	23	5,553	57
Garfield	8.7	6.3	13,282	81	2,141	78
Richardson	8.7	6.6	14,225	64	9,937	28
Jefferson	8.7	7.1	15,266	36	8,759	36
Logan	8.3	5.4	16,590	16	878	85
Pierce	8.1	8.7	14,563	56	7,827	43
Dawson	8.1	5.5	14,689	49	19,940	14
Madison	7.9	5.6	14,492	59	32,655	8
Cheyenne	7.9	5.0	16,376	17	9,494	31
Johnson	7.9	8.2	13,752	74	4,673	60
Thayer	7.8	8.5	15,035	40	6,635	49
Saline	7.7	5.8	14,842	46	12,715	22
Seward	7.6	7.0	13,522	79	15,450	18
Lincoln	7.5	5.3	15,069	38	32,508	9
Saunders	7.3	6.9	13,703	77	18,285	15
Buffalo	7.2	6.5	13,856	70	37,447	5
Stanton	7.0	6.9	12,796	85	6,244	52
Box Butte	7.0	2.1	16,295	18	13,130	21
Knox	7.0	6.8	11,037	92	9,534	30
Platte	6.9	6.0	14,665	51	29,820	10
Lancaster	6.9	5.5	16,067	21	213,641	2
Deuel	6.9	4.0	17,127	15	2,237	77
Webster	6.8	9.3	15,421	35	4,279	62
Sioux	6.7	4.3	17,299	14	1,549	81
Frontier	6.7	8.7	14,674	50	3,101	72
Keith	6.6	4.8	15,860	26	8,584	38
Gage	6.5	6.6	14,703	48	22,794	12
Scotts Bluff	6.4	2.8	14,431	61	36,025	6
Nance	6.4	8.5	13,781	73	4,275	63
Douglas	6.2	5.7	17,674	11	416,444	1
Adams	6.2	5.7	16,256	19	29,625	11
Red Willow	6.2	4.5	14,159	65	11,705	25
Dodge	6.1	4.5	14,394	62	34,500	7
Boone	6.1	9.6	13,902	68	6,667	48
Phelps	6.0	9.4	18,574	7	9,715	29
Cass	6.0	4.6	13,781	72	21,318	13
Kimball	5.9	4.4	17,600	12	4,108	64
Hall	5.8	5.5	14,847	45	48,925	4
Sarpy	5.8	6.4	15,009	41	102,583	3
Valley	5.3	7.5	14,523	57	5,169	59
Hayes	5.3	12.4	20,692	4	1,222	82
Burt	5.0	7.1	14,974	42	7,868	42
Sherman	4.9	10.4	13,196	82	3,718	68
Polk	4.4	3.8	15,966	24	5,675	56
Franklin	4.3	8.7	14,810	47	3,938	65
Fillmore	4.1	10.1	19,081	6	7,103	45
Howard	3.7	7.9	12,635	86	6,055	54
Morrill	3.3	2.2	14,906	44	5,423	58
Antelope	3.2	9.5	12,502	88	7,965	41
Greeley	3.0	12.1	14,473	60	3,006	73
Banner	2.9	-3.6	15,601	32	852	86
Kearney	2.8	9.2	16,107	20	6,629	50
York	2.1	7.9	15,598	33	14,428	19
Merrick	2.0	8.8	12,983	83	8,042	39
Harlan	1.7	9.1	13,455	80	3,810	66
Dundy	1.6	12.4	21,196	3	2,582	75
Clay	1.5	9.8	16,060	22	7,123	44
Butler	1.4	8.6	14,495	58	8,601	37
Gosper	1.1	11.7	17,417	13	1,928	80
Perkins	0.6	8.2	23,700	2	3,367	70
Chase	0.0	7.0	15,860	25	4,381	51
Hamilton	-0.1	10.2	14,972	43	8,862	35

/1 1990 population for U.S., 249,632,692; Nebraska, 1,578,385; NE Metro, 766,017; NE Nonmetro, 812,368

We're Crazy About Computers

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It's almost a cliché to say that personal computers have become a significant part of our daily lives at home, at work, and at school since their introduction nearly ten years ago. By the fall of 1989, nearly one in three persons age three years and older used a computer, according to a report from the Commerce Department's Census Bureau. The report also concludes that the proportion of households with computers grew from 8 percent in 1984 to 15 percent in 1989.

Computer use was much greater among those under 17 years of age (Figure 1). Nearly one-half (46 percent) of those age 3 to 17 used a computer at home or in school in 1989, up from 30 percent in 1984. Twenty-eight percent of those 18 and over reported using a computer at home, work, or school—up from 18 percent in 1984. Among the 115 million employed adults, 37 percent said that they used a computer at work, compared with 25 percent five years earlier.

The jump in computer use may be attributable to significant price reductions and increased availability of software packages. Programs for desktop publishing, databases, and electronic mail have been key players in stimulating rapid growth.

Figure 1
Computer Use by Age
1984 and 1989

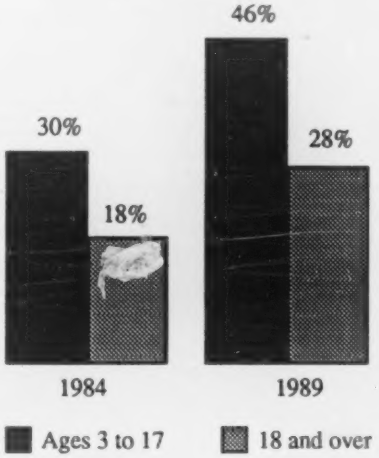
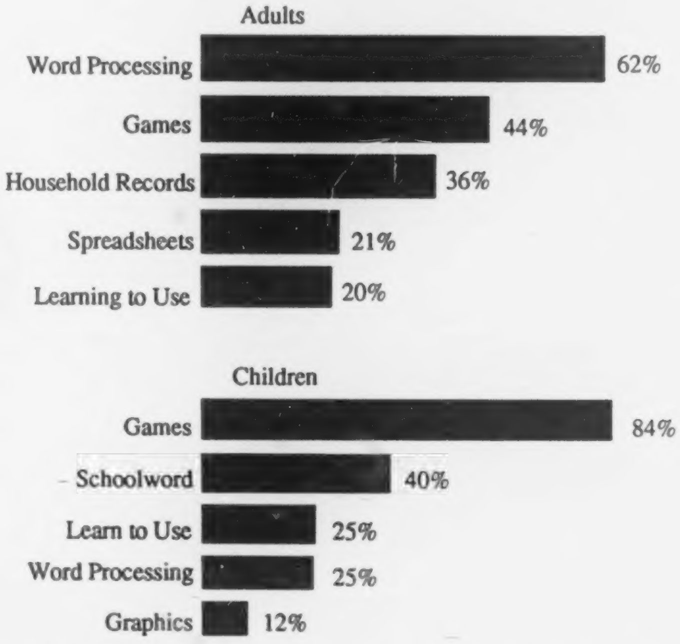


Figure 2
Most Popular Applications of Home Computers
1989



Games top the list for children as the most common use of home computers (84 percent), whereas word processing (62 percent) is the most popular use of home computers for adults (Figure 2).

The 1989 report indicates, as did the 1984 report, that two groups represent the leading edge in computer usage. One group consists of persons who became comfortable using computers in their jobs and find uses for them at home. The other consists of parents who are preparing their children for the workforce.

Other highlights of the report include:

- More women (43 percent) than men (32 percent) use computers in the workplace;
- Home access and school use of computers rise with income;
- The highest level of usage is in finance, insurance, and real estate, where 71 percent of workers report using computers;
- Among students, white children are more likely to use a computer at school than are black children (48 percent versus 35 percent);
- There is a strong correlation between education, home ownership, and computer use. Children of householders with four or more years of college report a use rate close to 75 percent, compared with 58 percent for householders with less than a high school diploma.

As in all surveys, the data are subject to sampling error.

State Income Inequality

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State per capita income inequality, which decreased steadily from 1932 to 1979, began to increase rapidly after 1979, according to the Economic Research Service (ERS), U.S. Department of Agriculture. From 1979 to 1989 inequality rose 41 percent. State per capita income inequality is measured in relation to U.S. per capita income.

Indexing Nebraska's 1989 per capita income to the national mean can be illustrated in the following manner:

$$\frac{\text{Nebraska 1989 Per Capita Income}}{\text{U.S. 1989 Per Capita Income}} = \frac{92 \text{ (Indexed Nebraska PCI)}}{100 \text{ (Indexed U.S. Mean PCI)}}.$$

Per capita income in Nebraska decreased significantly in relation to the national mean from 1979 to 1989, largely as a result of widely fluctuating farm income levels.

Income comprises three major components—earnings; dividends, interest, and rent (DIR); and transfer payments. Earnings, the largest component of total per capita income (69 percent), was responsible for the rapid increase in state per capita income inequality. Changes in transfer payments (which accounted for 14 percent of total income) tempered the effect of earnings on state per capita income inequality.

State Groupings

States can be categorized by their 1979-1989 change in per capita income relative to the national mean as convergent, moving toward the mean, or divergent, moving from the mean. Divergence upward (states with above average state per capita income whose per capita income rose) and downward (states with below average state per capita income whose per capita income fell) contributes to per capita income inequality. Convergence upward (states with below average state per capita income whose per capita income increased) and downward (states with above average state per capita income whose per capita income dropped) contributes to per capita income equality.

All upwardly moving states are located along the Atlantic coast or in New England. The largest increase in state per capita income inequality from 1979 to 1989 was caused by the upwardly divergent states (states with higher than average per capita incomes in 1979 that rose further above the mean after 1979).

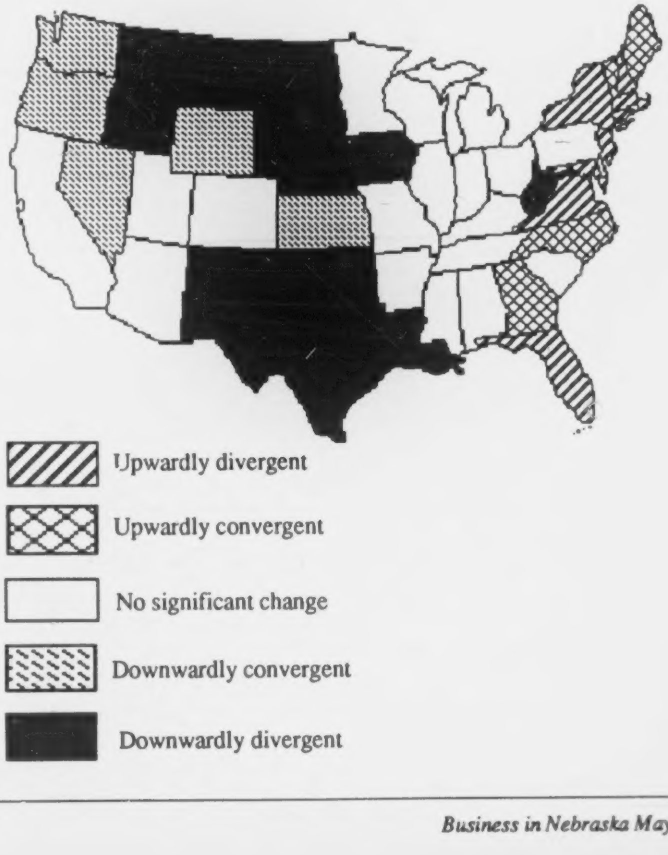
Per capita income relative to the national mean among these upwardly divergent states increased an average of 16 percentage points. Among the upwardly convergent states (states with lower than average per capita income in 1979 that rose toward the U.S. mean after 1979), the average increase in per capita income was 9.5 percentage points.

All downwardly moving states (a group that includes Nebraska, Iowa, South Dakota, North Dakota, Kansas, and Wyoming) except West Virginia are located west of the Mississippi. Per capita income among the downwardly moving states decreased an average of 11 percentage points, with diverging states declining an average of 10 points and converging states falling an average of 14 points.

Per capita income decreased 10 points in Nebraska, 12 points in Iowa, 13 points in South Dakota, 16 points in North Dakota, 10 points in Kansas and 32 points in Wyoming. Minnesota showed no significant change in per capita income. Figure 1 illustrates the movement for individual states. Due to potential margins of error in estimating state per capita income, states that diverged or converged less than five percentage points are considered to have experienced no significant change.

Since 1929 Nebraska's per capita income averaged approximately 92 percent of the national mean. In 1979 the state's relative per capita income was higher than the

Figure 1
State Per Capita Income Movement
1979-1989



Percent Change? Or Percentage Point Change?

A common mistake is to interchange the terms *percentage point change* and *percent change*. They are different. Confusion occurs when the original unit of measurement is in percentage terms, as is the case with the Consumer Price Index (CPI).

To illustrate, the CPI for all items in December 1989 was 377.6 percent (1967 base period). The CPI for all items increased to 400.9 percent in December 1990. The actual change in the CPI for 1989-1990 was 23.3 (400.9 - 377.6 = 23.3). Because the unit of measurement is in percentage terms, the change is a percentage point change.

The percent change in the CPI, in contrast, would be calculated by dividing the change (the percentage point change) by the initial value (the CPI for 1989) and multiplying by 100. The percent change in the CPI for 1989-1990 was 6.2 percent (23.3 ÷ 377.6 x 100 = 6.2 percent).

State per capita incomes are indexed relative to national per capita income; hence, the unit of measurement is percent. The index for Nebraska per capita income in 1979 was 102; that is, Nebraska's per capita income in 1979 was 102 percent of the national average per capita income. In 1989, the index for Nebraska per capita income was 92, a 10 percentage point decrease from 1979 to 1989. The percent change was -10.9 percent (-10 ÷ 102 x 100 = -10.87 percent).

norm due to exceptionally high farm income. Because farm income causes most of the variance in Nebraska's per capita income, the decrease in Nebraska's relative per capita income from 1979 to 1989 reflects a return to its normal position rather than a significant overall change.

Industrial Groupings

States also can be grouped according to percent of earnings from major industries. States classified as traditional manufacturing states (Connecticut, Illinois, Indiana, Michigan, Ohio, Pennsylvania, and Wisconsin), farming states (Arkansas, Idaho, Iowa, Kansas, Kentucky, Minnesota, Montana, North Dakota, Nebraska, South Dakota, Vermont, and Wisconsin), or energy states (Colorado, Kentucky, Louisiana, Montana, New Mexico, North Dakota, Oklahoma, Utah, Texas, West Virginia, and Wyoming) had severe economic problems during the 1980s. States classified as high technology manufacturing states (Connecticut, Delaware, Massachusetts, New Hampshire, New Jersey, and Vermont) or producer services states (California, Colorado, Connecticut, District of Columbia, Florida, Illinois, Maryland, Massachusetts, New Jersey, and New York) enjoyed substantial economic growth during the decade.

Although traditional manufacturing states (those with at least 12 percent of total earnings derived from manufacturing in 1979) were hit hard by increased foreign competition in the 1980s, the traditional manufacturing states had little significant impact on the overall increase in state per capita income inequality. Per capita income in the manufacturing states increased an average of 1.3 percentage points.

The farm crisis depressed income growth rates in the 12 states with at least 4 percent of total earnings from farming, but one-third of these states were able to maintain their relative per capita income positions (Table 1). Per capita income in the farm states declined an average of 6.3 percentage points

Falling energy prices contributed significantly to the rise in state per capita income inequality. The average decline in per capita income in the 11 states with at least 3 percent of total earnings from energy was 10.6 percentage points.

Advances in high technology generated new investment and employment opportunities in some states. The 19 point average increase in per capita income in states with 9 percent or more of total earnings from high tech industries affected growing income inequality significantly. All six of the states classified as high tech are on the Atlantic coast or in New England.

Producer services industries grew rapidly in the 1980s. Per capita income in the producer services states (more than 9 percent of total earnings) increased an average of 10.8 percentage points. Seven of the producer services states are on the Atlantic coast. The other three states in this group (California, Colorado, and Illinois) experienced no significant change in income.

Table 1
Farm State Per Capita Income Change 1979-1989

	1979	1989	% Point Change
Arkansas*	80	78	-2.0
Idaho	90	83	-7.0
Iowa	105	93	-12.0
Kansas	107	97	-10.0
Kentucky*	85	83	-2.0
Minnesota*	106	107	1.0
Montana	94	83	-11.0
Nebraska	102	92	-10.0
North Dakota	96	80	-16.0
South Dakota	93	80	-13.0
Vermont	90	99	9.0
Wisconsin*	104	101	-3.0

* change not statistically significant

Conclusion

Will the present trend in state per capita income inequality continue? Three scenarios have been projected by the Economic Research Service.

Scenario one assumes that per capita income growth in each state will continue according to the 1969-1989 trend. The gap in per capita income inequality will widen 56 percent from 1989 to 1995, 14 percent more than the 1979-1989 increase.

Scenario two assumes that per capita income will grow at the average 1983-1989 rate, reflecting the economic expansion that occurred during those years. Under this scenario, state per capita income inequality will grow 31 percent from 1989 to 1995.

Scenario three is based on Bureau of Economic Analysis projections of state per capita income through the year 2000. BEA views the 1979 to 1989 increase in income inequality as an aberration and projects a slowdown in the national growth rate of real per capita income to 1.23 percent per year from 1988-2000, down from the 1.53 percent growth rate during 1979-1988.

According to these projections, per capita income will grow slower than average in high income regions (those regions above the mean in 1988) and faster than average in low income regions. Even under these conditions, however, the level of inequality in 1995 will be 28 percentage points above the 1979 level. BEA projections do not include 1989 figures; in order for the projections to be accurate, income will have to converge even more quickly than projected.

Recent events can combine to change the circumstances of state per capita income inequality. The current slowdowns in the northeast and mid-Atlantic regions easily could reduce the levels of inequality. State per capita income data from 1990 and 1991 are needed to indicate the scope and longevity of such changes.

Over time, the inequality in state per capita income can cause divergence in regional living standards, human resources, infrastructure development, and general economic vitality. If regional per capita income equality is to become an important national issue, the burden of boosting conditions in the poorer regions undoubtedly will fall on federal policy makers.

References

The Rapid Rise in State Per Capita Income Inequality in the 1980s, Sources and Prospects, January 1991, Thomas D. Rowley, John M. Redman, John Angle, U.S. Department of Agriculture, Economic Research Service.

Veterans Living in Nebraska and the Nation

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The number of veterans living in the United States was estimated at 27 million as of March 31, 1990. The U.S. Department of Veterans Affairs provided this national estimate along with comparable estimates for each of the 50 states and estimates for various subgroups. World War II veterans, about 8.9 million persons, were the largest of the subgroups identified.

Nebraska veterans were estimated at 176,000. Of this total, 135,000 gained this distinction during wartime. World War II veterans were again the largest subgroup, followed by a close second—veterans of the Vietnam era. Peacetime veterans account for nearly one-fourth of all veterans in this state (see below).

Veterans comprise 15 percent of the adult population and approximately 11 percent of the total population of the Cornhusker State. They are an important part of the business and economic network throughout the state, including farm and nonfarm activities. Many Nebraska families identify with one or more subgroups due to the various time periods that members served in active duty.

Another subgroup of veterans likely will be added to those shown below. The more than one-half million military personnel assigned to the Desert Storm operation in the Persian Gulf included regular military, reserves, and National Guard men and women from Nebraska. Among this group will be those veterans who will return to this state and who again will generate economic activity through expenditures for durable and nondurable goods and services.

Table 1
U.S. and Nebraska Veterans

Item	U.S.	Nebraska
	——Thousands——	
Total Veterans	27,001	176
Wartime Veterans:		
Total[1]	20,754	135
Vietnam Era	8,301	53
Korean Conflict	4,854	33
World War II	8,892	55
World War I	90	1
Peacetime Veterans		
Total	6,247	41
Post-Vietnam Era	2,976	21
Service Between Korean Conflict and Vietnam Era Only	2,943	19
Other Peacetime	328	1
Veterans per 1,000 Civilian Population Over 18 Years of Age	147.3	150.0

[1] Totals include some overlapping among subgroups

Review and Outlook

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National Outlook

From Glee to Hand Wringing

Years ago Nancy Wilson of Omaha had a hit tune entitled "What a Difference a Day Makes." Today's economists may be singing a song called "What a Difference a Month Makes."

A month ago, the general atmosphere was elated—the end of the recession appeared imminent. But this month the gloom and doomers prevail. What has changed? The answer is very little. There lies the problem. We needed to see more positive changes in the last month in order to justify continued optimism.

The biggest disappointment is automobile sales. Production plans for the second quarter are extremely low. Production cuts first were publicized in March.

Where do we stand at present? Consumer confidence has slipped marginally, but is still high compared to two or three months ago. Automobile sales have yet to recover, remaining below their year ago levels. Housing starts are advancing, although the increase in new house sales in March was a modest 1 percent.

Perhaps the biggest change on the economic scene over the last month is the recent Federal Reserve decision to cut the discount rate and the federal funds rate. Let's focus on that story for a moment.

We need to distinguish the discount rate and the federal funds rate. The discount rate is the rate at which banks may borrow from the Fed. Little borrowing is done at this rate—the discount rate is essentially a symbol. Thus, the drop in the discount rate of a half a percent does not imply that we will see decreases in consumer interest rates of the same magnitude.

The federal funds rate dropped a quarter of a percent at the same time as the fall in the discount rate. The federal funds rate is an interest rate charged among banks for extremely short-term borrowing. This rate is controlled closely by Federal Reserve monetary policy.

The change in the federal funds rate is more important than the discount rate change, because the federal funds rate is an actively used interest rate. Other short-term interest rates are linked to the federal funds rate. Several banks lowered their prime rates within a few days of the Fed's actions. The prime rate is the rate charged by banks to their best customers.

Nevertheless, one can question the importance of short-term interest rates. Although they may impact financial markets, such rates have little impact on long-term investment decisions. We need to look at longer-term interest rates, such as the mortgage rate. Long-term rates tend to be tied to changes in inflation.

Thus, the mortgage rate and the federal funds rate may be only loosely tied. If we wish to stimulate the economy, the Federal Reserve's actions should be linked to a reduction of overall levels of inflation. This reduction

Table I
Income and Earnings in Nebraska*
($ millions)

	Fourth Quarter 1988	First Quarter 1989	Second Quarter 1989	Third Quarter 1989	Fourth Quarter 1989	First Quarter 1990	Second Quarter 1990	Third Quarter 1990	Fourth Quarter 1990	% Change 1990:IV vs. Year Ago
Income										
Total Personal Income	23,994	25,201	25,253	24,951	25,682	27,298	27,218	26,817	27,395	6.7
Nonfarm	22,271	22,815	23,228	23,615	24,040	24,487	24,970	25,245	25,606	6.5
Farm	1,723	2,387	2,025	1,336	1,641	2,811	2,248	1,572	1,789	9.0
Earnings by Industry**										
Ag. Services, Forestry & Fisheries	139	135	143	150	147	155	153	159	156	6.1
Mining	58	56	54	54	55	56	56	60	64	16.4
Construction	950	912	931	919	930	981	976	988	987	6.1
Manufacturing	2,443	2,472	2,472	2,503	2,500	2,568	2,634	2,605	2,676	7.0
Nondurable	1,206	1,218	1,228	1,241	1,238	1,218	1,287	1,264	1,286	3.9
Durable	1,237	1,254	1,244	1,262	1,263	1,350	1,347	1,341	1,390	10.1
TCU***	1,673	1,733	1,733	1,723	1,737	1,749	1,784	1,806	1,800	3.6
Wholesale Trade	1,300	1,307	1,327	1,336	1,351	1,426	1,412	1,486	1,471	8.9
Retail Trade	1,674	1,693	1,703	1,734	1,743	1,775	1,781	1,809	1,829	4.9
FIRE****	1,210	1,262	1,258	1,255	1,297	1,310	1,346	1,372	1,381	6.5
Services	3,784	3,890	3,956	4,067	4,160	4,219	4,379	4,482	4,611	10.8
Government	3,134	3,185	3,239	3,270	3,360	3,421	3,594	3,546	3,633	8.1
Federal, Civilian	486	500	505	510	515	537	572	548	548	6.4
Military	406	420	417	414	411	421	420	422	425	3.4
State & Local	2,242	2,265	2,317	2,345	2,434	2,463	2,602	2,576	2,660	9.3

* All data are seasonally adjusted at annual rates
** Earnings is the sum of wages and salaries, other labor income, and income earned by sole proprietors
*** Transportation, Communication, & Utilities
**** Finance, Insurance, & Real Estate
Source: Bureau of Economic Analysis, U.S. Department of Commerce

in turn will work its way through to a reduction in long-term interest rates, thereby stimulating investment.

One of the current difficulties is that U.S. interest rates are out of line with international rates. American investors can tap into higher international interest rates; there may be a tendency for American funds to flow from the country to more attractive interest rate areas. Thus, lowering domestic rates alone is not always a solution to money availability problems. Considering how low short-term rates were before the Fed's actions, one has to question how important the drop was.

In other economic news, the GNP release of late April verified what we already knew—the first quarter was one of continued downturn. GNP in the first quarter dropped 2.8 percent at annual rates compared to the fourth quarter. In the fourth quarter, the drop was 1.6 percent. The largest decrease in GNP was in the investment block. We should not be surprised, as nonresidential investment tends to be a lagging or, at best, coincident indicator. Investment in this area is cooling, as is expected at this point in the business cycle.

Housing, on the other hand, is a leading indicator. Housing rebounded in February and March. The big rebound was in February, when new house sales increased 18.6 percent. March sales advanced 1.0 percent.

Consumer spending rose 0.6 percent in March following a 1.0 percent increase in February. These increases are surprising, as personal income increased only 0.2 percent in both February and March. These two moderate increases followed a moderate decrease of 0.4 percent in January.

Consumer confidence, according to the Conference Board, fell approximately two points, from 81.1 in March to 79.2 in April. This small regression was dwarfed by February's gain of 21.6 percent. The Conference Board described the April numbers as "showing sustained consumer confidence."

The unemployment rate dropped 0.2 percent in March, surprising many analysts who had expected an increase.

How does all this news affect our forecast for the economy? Basically, the date anticipated for start of the recovery may have slipped somewhat, given recent economic news. Many economists currently believe that the recovery will begin this summer.

It is now less likely that the second quarter 1991 GNP will show a positive advance.

Nebraska Outlook

The regional nature of the recession was revealed in the personal income data for the fourth quarter recently released by the U.S. Bureau of Economic Analysis. Personal income growth in Nebraska, the Plains, and Rocky Mountain states far outstripped U.S. growth. Table I gives details of Nebraska's recent track record.

Data from an additional source show that Nebraska personal income grew 2.2 percent from the third quarter to the fourth quarter of 1990, nearly a dead match to the Plains growth rate of 2.3 percent. The U.S. expanded only 0.8 percent. The Rocky Mountain states grew an overall 2.9 percent, led by Montana's increase of 10.0 percent. North Dakota led the Plains and the U.S. with an increase of 19.9 percent.

Table II
Employment in Nebraska

	Revised February 1991	Preliminary March 1991	March % Change vs. Year Ago
Place of Work			
Nonfarm	743,728	750,964	4.7
Manufacturing	100,562	100,368	4.1
Durables	49,135	48,985	1.8
Nondurables	51,427	51,383	6.5
Mining	1,447	1,637	11.0
Construction	25,676	27,349	14.6
TCU*	45,751	45,552	0.5
Trade	186,328	188,141	2.9
Wholesale	50,879	51,313	-2.3
Retail	135,449	136,828	4.9
FIRE**	49,131	49,401	2.4
Services	186,488	188,758	8.2
Government	148,345	149,758	3.7
Place of Residence			
Civilian Labor Force	852,250	857,366	2.9
Unemployment Rate	2.8	2.8	

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table III
Price Indices

	March 1991	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	135.0	4.9	5.3
Commodities	125.7	3.8	4.4
Services	144.8	5.8	6.1
Producer Price Index (1982 = 100)			
Finished Goods	120.6	2.9	3.3
Intermediate Materials	114.3	1.7	2.3
Crude Materials	101.6	-3.8	0.2
Ag Index of Prices Received (1977 = 100)			
Nebraska	162	-0.6	-2.3
Crops	115	-10.9	-11.5
Livestock	192	4.3	2.2
United States	149	-0.7	-3.5
Crops	128	-0.8	-6.0
Livestock	169	-1.2	-2.1

U* = All urban consumers

Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

Much of the growth in personal income was in the farm sector. The BEA notes that the farm income increases in the fourth quarter followed a decrease in the

Table IV
City Business Indicators
January 1990 Percent Change from Year Ago

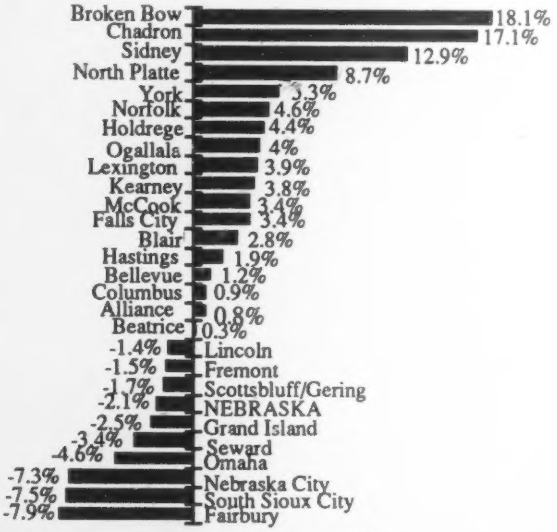
The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	2.0	-7.9
Alliance	-0.2	86.5
Beatrice	-1.0	-10.5
Bellevue	2.7	-46.3
Blair	2.7	80.0
Broken Bow	-0.6	1501.1
Chadron	1.7	389.6
Columbus	3.3	-2.9
Fairbury	1.3	-83.0
Falls City	3.6	-14.7
Fremont	1.1	-26.2
Grand Island	1.6	1.3
Hastings	1.3	-15.7
Holdrege	3.0	59.0
Kearney	2.8	10.8
Lexington	2.5	67.2
Lincoln	1.9	8.6
McCook	1.7	11.4
Nebraska City	-4.6	-62.7
Norfolk	5.3	-38.1
North Platte	4.2	179.8
Ogallala	0.6	29.1
Omaha	2.7	-22.6
Scottsbluff/Gering	2.3	-51.9
Seward	1.5	-27.8
Sidney	4.9	856.7
South Sioux City	0.4	-63.9
York	1.6	101.9

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2) Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

Figure I
City Business Index
January 1991 Percent Change From Year Ago



third quarter. The upswing was due to farm subsidy payments.

To abstract the distortion of farm subsidy payments, we can look at nonfarm personal income. Even here, Nebraska showed relative strength. Nebraska's nonfarm personal income increase of 1.4 percent from third to fourth quarter was the highest of all Plains states and twice the rate of increase for the nation. Nebraska's rate of increase was the eighth fastest of all states.

Nebraska's nonfarm income gains, however, did not keep pace with inflation. Inflation (as measured by the Consumer Price Index) increased 1.6 percent over the period. Only four states had nonfarm personal income growth at a rate faster than inflation. Nevada led these states with a 2.1 percent increase.

Although a one quarter change may be of interest as we try to decipher the regional impacts of the recession, longer-term trends are perhaps of greater interest. From 1980 to 1990, Nebraska total personal income grew 6.4 percent annually, compared to an increase of 7.5 percent for the United States. Nebraska's population showed little growth over the period, whereas the U.S. population increased nearly 1 percent per year, which suggests near parity between Nebraska and the nation.

We can explore this parity in the per capita personal income data. Nebraska's per capita personal income grew at an average annual rate of 6.4 percent from 1980 to 1990, versus 6.5 percent for the U.S. Both increases outstripped the overall annualized rate of inflation of 4.7 percent for the decade. After adjusting for inflation, real per capita personal income in Nebraska grew 1.6 percent annually—a respectable rate for real growth.

Overall, Nebraska's per capita income remains at 92 percent of the national average. This figure is in line with historical averages for the ratio. The relative cost of living for Nebraska's major cities compared to the U.S. also roughly centers on the 92 percent figure. Thus, the purchasing power of the average Nebraskan is on par with that of the average U.S. citizen

Spring rains were welcomed across the state, as subsoil moisture levels are below normal in many areas. Severe storms accompanied the rain, however, causing damage to farmsteads, businesses, and houses. The rains provide a positive outlook for the planting season.

Nationally, farm income is expected to be down somewhat in 1991. Nevertheless, we are less pessimistic about Nebraska's farm income than we have been in the past. To track where Nebraska's farm income is going, we should keep a watchful eye on the cattle industry. Currently, prices for cattle remain relatively high.

As shown in Table V, Nebraska retail sales remain poor and even show a deterioration in January compared to a year ago. Most of the deterioration is in exceptionally poor motor vehicle sales. Retail sales have been the one consistent source of a national recession impact on the Nebraska economy. The downturn in retail sales is

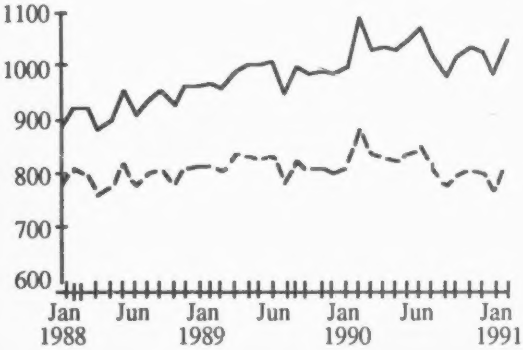
Table V
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)		City Sales (2) January 1990 (000s)	City Sales (2) % Change vs. Year Ago	Region Sales (2) January 1990 (000s)	Region Sales (2) % Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA		$825,982	-1.0	$922,914	-3.6	-3.6
1	Omaha	283,694	-5.7	335,821	-6.6	-6.6
	Bellevue	10,866	12.3	*	*	*
	Blair	4,397	2.1	*	*	*
2	Lincoln	110,520	-1.2	123,246	-4.9	-4.9
3	South Sioux City	5,258	-1.6	6,889	-3.9	-3.9
4	Nebraska City	3,640	3.9	16,933	-1.1	-1.1
6	Fremont	15,347	3.8	28,172	2.0	2.0
	West Point	3,185	15.1	*	*	*
7	Falls City	2,071	11.2	8,564	2.2	2.2
8	Seward	4,261	-0.9	14,012	-8.5	-8.5
9	York	5,880	7.8	14,052	3.7	3.7
10	Columbus	14,926	5.0	25,849	-0.3	-0.3
11	Norfolk	18,866	15.9	32,500	5.1	5.1
	Wayne	3,136	16.2	*	*	*
12	Grand Island	29,576	-2.7	42,409	-2.4	-2.4
13	Hastings	15,064	10.2	23,497	1.2	1.2
14	Beatrice	7,641	8.0	16,853	-3.0	-3.0
	Fairbury	2,683	5.3	*	*	*
15	Kearney	18,705	10.0	27,032	11.4	11.4
16	Lexington	5,370	5.9	15,081	2.8	2.8
17	Holdrege	4,411	7.0	8,023	2.6	2.6
18	North Platte	15,019	9.6	19,028	7.1	7.1
19	Ogallala	4,738	11.0	9,578	-4.1	-4.1
20	McCook	7,386	10.1	10,655	5.4	5.4
21	Sidney	3,488	4.6	7,625	7.1	7.1
	Kimball	1,828	17.0	*	*	*
22	Scottsbluff/Gering	16,817	7.0	24,097	6.7	6.7
23	Alliance	4,712	0.2	13,618	5.5	5.5
	Chadron	2,858	25.6	*	*	*
24	O'Neill	3,970	11.5	13,798	9.0	9.0
	Valentine	2,434	12.9	*	*	*
25	Hartington	1,800	10.8	8,039	3.1	3.1
26	Broken Bow	3,586	17.0	10,939	-0.9	-0.9

(1) See region map
(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales
*Within an already designated region

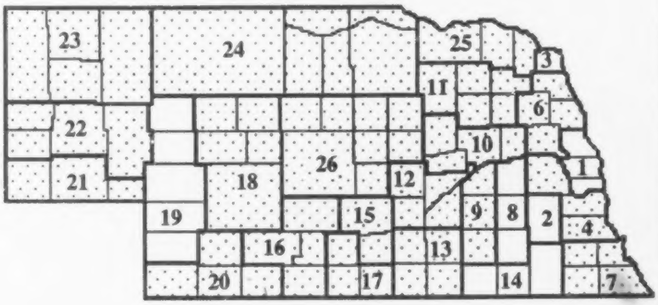
Compiled from data provided by the Nebraska Department of Revenue

Figure II
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure III
Region Sales Pattern
YTD as Percent Change From Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

reflected in the overall decrease in consumer confidence. It will take some time before recovery in these numbers will be displayed in our table due to reporting lags.

Recent data indicate that Nebraska has not kept pace with last year's construction activity in the first quarter. According to the F.W. Dodge survey, the value of total construction contracts through March has decreased 23.0 percent versus a year ago. Total building construction is off 41.0 percent, while nonbuilding construction (roads, bridges, sewers, etc.) with a gain of 12 percent is the only area showing any strength. Housing starts are off due to a dearth of apartment construction started in the first quarter.

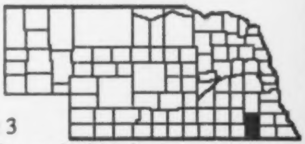
To gain some perspective, a year ago first quarter total value of construction contracts had gained 42 percent over 1989 levels. Building construction was up 46.0 percent, and nonbuilding construction was up 34.0 percent. This year's value of construction activity is still ahead of 1989 levels in nominal terms.

Employment gains in Nebraska continue at the torrid pace set in January and February. Recent data indicate that job gains in March advanced 4.7 percent (Table II) over a year ago. This increase followed a like gain in January and a 4.8 percent jump in February. These rates of expansion are unlikely to be maintained.

The job gains contrast to the rate of increase in the number of persons employed. The latter increased 2.6 percent in March versus its year ago level. Jobs can and do increase faster than the number of persons employed. Individuals can hold multiple jobs. Not all new Nebraska jobs are necessarily held by Nebraskans.

County of the Month

Gage



Beatrice—County Seat
License plate prefix number: 3
Size of county: 858 square miles, ranks 24th in the state
Population: 22,794 in 1990 a change of -6.8 percent from 1980
Median age: 37.2 years in Gage County, 33.0 years in Nebraska in 1990
Per capita personal income: $14,703 in 1989, ranks 48th in the state
Net taxable retail sales ($000): $128,922 in 1990, a change of +8.6 percent from 1989; $9,837 during January, 1991, a change of +1.7 percent from the same period one year ago
Number of business and service establishments: 614 in 1988; 57.5 percent had less than five employees
Unemployment rate: 2.7 percent in Gage County, 3.1 percent in Nebraska for 1989
Nonfarm employment (1989):

	State	Gage County
Wage & salary workers	705,672	8,476
	(percent of total)	
Manufacturing	13.4%	15.0%
Construction and Mining	3.6	2.3
TCU	6.5	4.9
Retail Trade	18.5	19.8
Wholesale Trade	7.6	4.7
FIRE	6.8	3.2
Services	23.7	22.3
Government	19.9	27.8
Total	100.0%	100.0%

Agriculture:
Number of farms: 1,347 in 1987, 1,339 in 1982
Average farm size: 394 acres in 1987
Market value of farm products sold: $88.3 million in 1987 ($65,560 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Business in Nebraska

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The Impact of the 1990 Farm Bill on Nebraska

A.L. (Roy) Frederick, Professor of Agricultural Economics
University of Nebraska-Lincoln

The Food, Agriculture, Conservation and Trade Act (FACTA) of 1990 was signed into law by President Bush last November 28. This latest farm bill continues a 60 year tradition of providing a financial safety net for farmers. But FACTA is much more than a safety net. With 25 major titles or sections, FACTA is the longest, most comprehensive farm bill in history. Few parts of the U.S. agriculture/food system are untouched by the act.

Like other farm bills, FACTA is evolutionary. Many provisions of FACTA build on those contained in the Food Security Act of 1985.

Price and Income Supports

Take the basic farm price and income support system, for instance. Wheat and feed grains (corn, grain sorghum, barley, and oats) will continue to be supported by a combination of nonrecourse loans and target prices. In 1991 the national nonrecourse loan rate is $2.04/bushel for wheat and $1.62/bushel for corn. Producers may obtain loans from the federal government at these levels. If the market fails to rise above these respective loan levels, the federal government will assume ownership of the commodity in full payment of the loan. The government's willingness to be a buyer of last resort effectively establishes a price floor at the loan level.

Although nonrecourse loan rates in 1991 are a few pennies higher than last year, even casual observers of the agricultural sector know that prices at the loan level would not be good news for Nebraska agriculture. Most producers would experience losses because production costs have continued to escalate. Thus, income supports are the key farm program variable for most producers. Since 1973 payments have been provided to producers through a target price mechanism.

FACTA freezes target prices at 1990 levels for the 1991-1995 period. For wheat, the target price is $4.00/bushel; for corn, $2.75. The federal government will pay a direct income supplement or deficiency payment on the difference between the target price and the higher of the nonrecourse loan level or the average market price. Thus, in the case of wheat, the deficiency payment may be as high as $1.96/bushel ($4.00 - $2.04). For corn, the payment could be as much as $1.13 ($2.75 - $1.62). If the average market price exceeds the loan level, deficiency payments will be less.

State Economic Scoreboard

Change from same month one year ago
See Review and Outlook for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (February) Constant $	↓ -9.3%	↓ -8.9%	↓ -9.6%
Nonmotor Vehicle Sales (February) Constant $	↑ 1.0%	↓ -0.9%	↑ 3.1%
Building Activity (February) Constant $	↓ -16.1%	↓ -22.5%	↓ -4.7%
Employment (April)	↑ 2.8%	↑ 3.5%	↑ 2.2%
Unemployment Rate* (April)	↑ 2.4	↑ 2.4%	↑ 2.4%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

Deficiency payments (and nonrecourse loans) are available only to producers who voluntarily participate in acreage reduction programs. In 1991, for example, wheat producers have had to retire 15 percent of their wheat base from production to be eligible for program benefits. The corn acreage adjustment requirement is 7.5 percent.

By retiring a designated portion of the production base, commodity supplies should be lower. Reducing the production base raises market prices. But in recent years, prices generally have been less than target prices which has resulted in some sizeable deficiency payments. In 1987, for example, a record $1.066 billion was paid to Nebraska producers. Another $1 billion-plus year was recorded in 1986. Even though payments have declined somewhat in recent years, the total for 1990 crops already has reached $529 million, with some further payments for last year's crops possible later in 1991.

In short, deficiency payments are big business in Nebraska. Moreover, their importance extends beyond farm families. Any reduction in deficiency payments not offset by higher market prices or loan rates will be multiplied through the state's economy. At first blush, it may appear that there is no reason to give a second thought to the magnitude of deficiency payments over the next five years. After all, target prices have not been changed and the basic operating mechanism remains in place. There are, however, several reasons to be cautious.

First, total deficiency payments are a function not only of the payment rate per bushel, but of the number of bushels on which payment will be made. As a part of last year's omnibus budget reconciliation, the congressional agriculture committees were directed to reduce farm program spending $13.8 billion over the next five years. Such cuts will be accomplished primarily by reducing the number of acres (and, ultimately, bushels) on which deficiency payments will be made 15 percent. Although this provision is made somewhat more palatable by allowing almost any crop to be planted on nonpayment acres, total payments and farm cash flows seem sure to be affected negatively. The greater the payment rate per bushel, the more the loss of 15 percent of the payment acres will be felt.

Second, even though nominal target prices will remain unchanged through 1995, real target prices will decline because of inflation. The higher the inflation rate, the less protection will be provided by target prices not adjusted for inflation. This scenario will contrast sharply to the 1970s and the first half of the 1980s when target prices were adjusted to provide considerable inflation protection.

Finally, at least a slight possibility exists that target prices will have to be reduced from current levels to abide by the requirements of a new international trade agreement on agriculture (GATT). The U.S. price and income support system is viewed by much of the world as trade-distorting. Thus, even though FACTA is in place for the next five years, U.S. negotiators may be forced to agree to a reduction in supports in exchange for trade concessions by our competitors. Continued domestic budget pressures could be a catalyst for such action as well. The history of farm bills is that amendments relating to support levels do occur within the multiple year life of specific acts. Amendments could happen again.

Conservation of Natural Resources

If price and income supports are an old theme in farm bills, an intense focus on conserving soil and water resources is relatively new. Although lip service has been given to conservation since the 1930s, the real push for stronger conservation provisions in farm bills began in 1985. The Conservation Reserve Program (CRP) was initiated at that time, with the government providing annual rental payments to producers who agreed to take land sensitive to wind and water erosion out of production for ten years. Approximately 34 million acres nationally (and over one million acres in Nebraska) were committed to the program in its first five years. FACTA continues CRP, with a new national goal of 40 million to 45 million acres in the program.

If the CRP was a carrot for addressing soil erosion, another 1985 provision was a stick. Producers on highly erodible land were required to submit a plan for controlling erosion by January 1, 1990. The plan is to be fully implemented by January 1, 1995. Failure to meet these deadlines makes producers ineligible for an array of government benefits, including the price and income supports discussed above. The highly erodible land provisions were continued in 1990, with an expanded list of government benefits to be denied for those who failed to comply.

The new farm bill's conservation provisions, however, do not stop with an update of the 1985 law. In general, one perceives much more of a comprehensive approach to conservation and environmental issues in FACTA.

For instance, the objective of a new wetlands reserve program is to retire one million acres of wetlands from production. Water fowl and other wildlife are expected to be the primary beneficiaries. At the same time, farmers who attempt to alter wetlands by draining or filling will have program benefits denied, much the same as for the highly erodible lands.

A new integrated farm management program is potentially beneficial to both the conservation of natural resources and the environment. Participating producers will be eligible for regular deficiency payments if they keep at least 20 percent of the crop base in resource-conserving crops, primarily legumes and legume-grass mixtures. This program also is expected to encourage greater rotation of crops.

A water quality incentive program, which will become operational in 1992, will provide special incentives to producers to minimize groundwater contamination. The program should be of particular interest to producers in areas of Nebraska where seepage of nitrates and pesticides into the groundwater has been an ongoing problem.

Concluding Comments

Agricultural producers are always interested in the details of a new farm bill. But other citizens should be knowledgeable about the 1990 act as well. Cash flows in rural communities and the environment (broadly defined) are two of the biggest issues that we Nebraskans collectively face. Citizens should recognize that the legislation also addresses subjects as diverse as food stamps, agricultural research, and crop insurance. There is a little something for almost everyone in the Food, Agriculture, Conservation and Trade Act of 1990.

Is America Failing to Save Enough?

Wallace C. Peterson, Professor of Economics, Emeritus
University of Nebraska-Lincoln

The question of whether there is a shortfall of saving in the American economy is a frequent media topic. It is an important question, as how much we save affects such crucial variables as investment, productivity, and the nation's future level of material well-being.

Like many issues in economics, the question is not as simple as one may suppose. The question does not yield a quick yes or no answer. This and a subsequent *Business in Nebraska* article will explore several facets of the question.

From the perspective of the nation, saving represents the dollar value of resources available for investment in physical capital in the form of structures and equipment. Statistically, the quantity of resources available for investment is the difference between national saving and net foreign investment.

National saving is equal to private saving by businesses and individuals plus net saving by all units of government. Government saving is positive if governments overall have a surplus of tax collections over expenditures and negative if expenditures exceed tax collections.

Net foreign investment is the difference between exports and imports of goods and services. When positive—exports are greater than imports—domestic saving is being invested abroad. When negative—imports exceed exports—foreign saving is flowing into the country.

Table 1 shows total resources, national saving, private saving, government saving, and net foreign investment as a percent of the Gross National Product (GNP) for 1980 through 1990. These data offer significant insight into the issue of the nation's saving behavior.

Total Resources

Several important conclusions about saving behavior in the United States can be drawn from these data. Other than during the recessions in 1982 and 1990, there has been no significant decline in the quantity of resources available for investment in new capital. As column (1) shows, total resources for investment averaged 15.5 percent of GNP; yearly figures were close to this average most of the time between 1980 to 1990.

National Saving

Column (2) for national saving tells a different and more alarming story. There is clear evidence of a decline, as the ratio of national saving to GNP dropped from a high of 17.1 percent in 1981 to a low of 12.0 percent in 1990. These figures lead to fears that the nation is failing to save enough.

Private Saving

The story behind the decline in national saving is told by the figures in columns (3) and (4). Column (3) records a relatively steady decline in private saving, again from a high of 18.0 percent of GNP in 1980 to a low of 14.3 percent in 1990. The reason for this decline lies almost entirely with the consumer. During the

Table 1
Total Resources, National Saving, Private Saving, Government Saving, and Net Foreign Investment
1980-1990
(in percent of GNP)

Year	(1) Total Resources	(2) National Saving	(3) Private Saving	(4) Government Saving	(5) Net Foreign Investment
1980	15.8%	16.2%	17.5%	-1.3%	0.5%
1981	16.8	17.1	18.0	-0.9	0.3
1982	14.1	14.1	17.5	-3.5	—
1983	14.6	13.6	17.4	-3.8	-0.9
1984	17.5	15.1	17.9	-2.8	-2.4
1985	16.1	13.3	16.3	-3.3	-2.8
1986	15.6	12.4	15.8	-3.4	-3.2
1987	15.7	12.3	14.7	-2.4	-3.4
1988	15.9	13.5	15.4	-2.0	-2.3
1989	15.2	13.3	15.0	-1.7	-1.9
1990	13.7	12.0	14.3	-2.3	-1.6
Average	15.5%	13.9%	16.3%	-2.5%	-1.6%

Source: Economic Report of the President, 1991

1980s, personal saving as a percentage of consumer disposable income dropped from 7.5 percent in 1981 to a low of 2.9 percent in 1987. Personal saving rebounded to 4.5 percent of disposable income in 1990, but this figure is well below what it was at the beginning of the decade. Business saving, on the other hand, did not change significantly during the 1980s.

Government Saving

Column (4) is another crucial piece of the puzzle. The figures in this column are negative for each year in the period, which tells us that governments ran deficits throughout the 1980s. Most state and local governments had surpluses during the 1980s, but these were outweighed by the deficits of the federal government. Thus, governments were a net drain on national saving. (National saving is equal to the sum of private saving plus or minus the surplus or deficits of governments.) For the period as a whole, government deficits absorbed an amount of private saving equal to 2.5 percent of GNP. This is not a small figure.

Net Foreign Investment

Finally, we have column (5), net foreign investment. This column, too, is negative for most of the years between 1980 and 1990. This means that foreign saving was flowing into the nation—during the 1980s we became net borrowers, rather than net lenders as we had been during all of the prior years in the post-World War II era. It was only this massive influx of foreign saving that kept total resources available for investment—column (l)—at the level shown. Without the influx of foreign funds, the economy would have been in worse shape as far as saving is concerned. Because of the influx of net foreign investment, the slide in relative size of total resources was held to 13.3 percent. As can be seen in the national saving figures, the slide in the relative size of total resources without the change in net foreign investment would have been 26.1 percent.

So what are we to conclude? Americans are saving less, mostly because of a decline in personal saving rather than because of any drop in business saving. More serious, however, is the extent to which private saving is being absorbed by the deficits of the public sector and the degree to which we have become dependent upon foreigners to supply resources for investment. These latter two developments do not bode well for the future health of the economy.

After having taught at the University of Nebraska-Lincoln for over 40 years, Dr. Peterson retired in May 1991. Dr. Peterson, the George Holmes Professor of Economics, not only taught generations of students, but also stimulated and continues to stimulate his colleagues at the University and in the academic community.

Why Alan Can't Do It All

Craig R. MacPhee, Professor of Economics
University of Nebraska-Lincoln'

It is disappointing that the recent public controversy over Federal Reserve monetary policy has focused almost exclusively on short-term interest rates, because such rates are unreliable indicators of economic conditions and an inappropriate target for the Fed. Alan Greenspan, chairman of the Federal Reserve Board, continues to be pressured to lower interest rates in order to alleviate the current recession, but it is questionable whether the Fed has the power to lower the rates that really matter.

Rates of Disinterest

There are several reasons why the Fed does not have absolute control over interest rates and several more reasons why the Fed should not attempt to exercise the limited power it does have. The one interest rate that the Fed sets is the so-called discount rate. This is the rate on loans of reserves to banks. But banks seldom borrow from the Fed, so this rate mainly is regarded as a (sometimes tardy) signal of the Fed's intentions.

The federal funds rate has received the most attention in the media recently. This is the interest rate that banks charge each other on very short-term (mostly overnight) loans. The main way the Fed influences this rate is through day-to-day variations in the total reserves of the banking system. The Fed alters reserves primarily through buying and selling U.S. government securities on the open market. These reserves constrain the ability of banks to create deposits through lending and thereby limit the availability of money in the private economy. The supply of money can affect other interest rates beside the federal funds rate, but, as we shall see, the relationship is loose. Easy money does not always lead to lower interest rates.

"Let Alan Do It"

Despite the loose linkages between total reserves and the rest of the economy, many persons still expect the Fed to provide stable prices, rapid economic growth, low unemployment, and stable exchange rates. Placing high expectations on the Fed, however, is really an attempt to shift blame for economic problems away from the political arena.

Fiscal policy has been immobilized by the stand-off between the President and Congress over taxing and spending. This dispute has led to large deficits even in boom times and eliminated the possibility of temporarily increasing the deficit to fight the recession. As a result, a recent article in the *Wall Street Journal* claimed that national economic policy now can be stated in four words: "Let Alan do it."

Enhanced expectations for the Federal Reserve are both unrealistic and dangerous. Such expectations are unrealistic because prices can rise for reasons other than too many dollars chasing too few goods. OPEC price hikes, drought, or higher priced imports all can trigger widespread price increases. Unemployment can be aggravated by wage hikes, demographic changes, and shifts in the structure of demand (such as an alteration in tastes for housing in the Sunbelt rather than in the Snowbelt). Exchange rates can vary because of foreign events and speculation. Finally, some goals conflict. For instance, putting the brakes on growth in the money supply to restore price stability inevitably leads to more unemployment and slower growth, at least temporarily.

Unrealistic expectations for monetary policy are dangerous because they allow the President and Congress to avoid the tough choices—fiscal policies—necessary to enhance economic growth.

The Importance of the Long Term

A large share of our economic growth is dependent on the additions that we make to our productive capacity in terms of new investment in plant and equipment and the new technology that often is embodied in investments. But these investments usually are financed through long-term loans, and it is the long-term rate of interest that most influences the cost of these investments. The long-term rate has been high, and investment has been inadequate for many years.

The Fed's sporadic daily alterations in reserves can influence the federal funds rate and other short-term rates of interest. The Fed seems to have little effect on the long-term rate of interest, however, except insofar as this rate alters the long-term market's expectations of inflation.

International Ties Bind the Fed

The free movement of funds among the major world economies also prevents the Federal Reserve from controlling interest rates independently. If the Fed were to follow a monetary policy much less restrictive than that of the German Bundesbank or the Bank of Japan, the incipient reduction in interest rates in the U.S. would cause an outflow of funds. This so-called capital outflow would counteract the Fed's attempt to expand the money supply. Because exchange rates are flexible as well, the increased financial flows probably would alter the foreign value of the dollar. The direction of exchange rate change is difficult to predict, because exchange rates are very sensitive to expectations. But rapid monetary expansion by the Fed usually is associated with depreciation of the dollar.

Long-term interest rates are affected most directly by the world's propensity to save and invest, by world governments' propensities to spend and tax, and by inflationary expectations. It is important to note that in the last decade the propensities to save in many of the large industrialized countries have declined, and the relatively low propensity to save in the United States hardly has increased.

Meanwhile, governments around the world continue to be large borrowers of funds. Thus, the current worldwide outlook is for long-term interest rates to stay high and for economic growth to remain slow, no matter what the Fed does.

Three Reasons not to Lower Interest Rates

Even if the Fed had absolute control over all interest rates, there are several good reasons why it should not lower them more. First, we already may be on our way out of the current recession. Further monetary expansion simply would add stimulus to the subsequent boom, bringing more inflation. *Maybe* is the operative word here because data collection is not fast enough to indicate the present state of the economy, and our forecasting ability will never be good enough to predict the future state of the economy with precision.

Second, high interest rates sometimes reflect inflationary expectations. Any attempt to bring interest rates down through expansion of reserves may aggravate and ratify the inflationary expectations.

Third, the Fed should avoid changing its monetary stance in the middle of a recession because the effects of a monetary expansion on the economy are subject to variable lags of many months.

A Prescription for the Fed

The lessons from this analysis are clear. The Fed should concentrate more on ensuring steady, noninflationary growth of bank reserves and pay less attention to short-term rates of interest. Were the Fed to announce that this would be its policy and if the Fed were to provide credibility by following its policy, then the Fed would eliminate much of the uncertainty that discourages long-term investment. Instead, the Fed would provide public confidence in long-term price stability that may encourage a higher propensity to save and lower long-term interest rates. Of course, Alan cannot do it all, and fiscal policies also should be changed to encourage more saving and lower government borrowing. Only then would we be able to achieve more economic growth with less inflation.

**This article is excerpted from remarks to the Monetary Policy Round Table, Federal Reserve Bank of Kansas City, April 26, 1991*

The Downturn Cycle: A Measure of the Impact of a Recession

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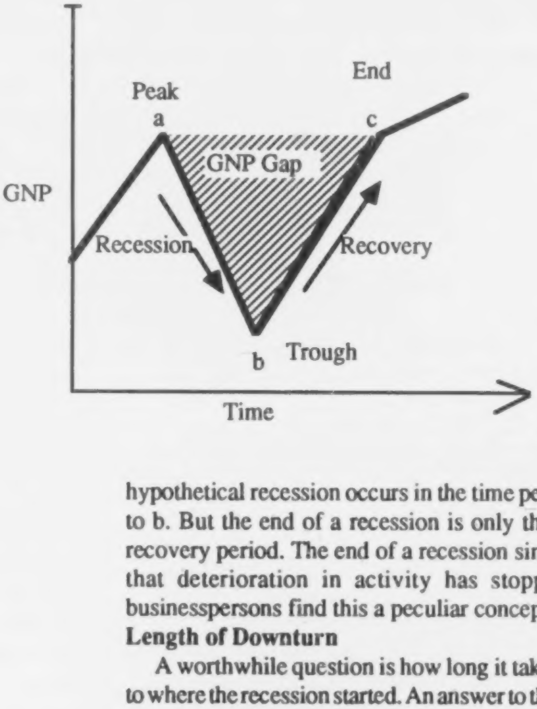
In this article, we present an alternative look at the length of a recession and suggest a crude measure of the economic loss experienced due to a downturn.

The classic definition of a recession is the time from a peak to a trough in economic activity. In Figure 1, the hypothetical recession occurs in the time period from a to b. But the end of a recession is only the start of a recovery period. The end of a recession simply means that deterioration in activity has stopped. Many businesspersons find this a peculiar concept.

Figure 1
GNP Gap Over Recovery Cycle
(Hypothetical)

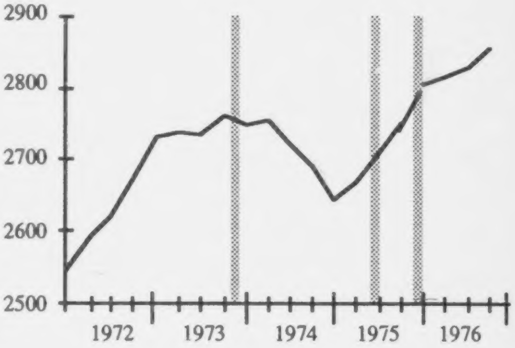


Length of Downturn

A worthwhile question is how long it takes to return to where the recession started. An answer to this question is available in what I call the downturn cycle. A downturn cycle is the period from a peak in economic activity to the next point where we reach the level of the peak. Again, referring to our hypothetical example in Figure 1, the downturn cycle occurs in the time period from a to c. The downturn cycle consists of the recession (a to b) plus the recovery period (b to c).

A downturn cycle is displayed in Figure 2 using data from 1972 to 1976. Figure 3 displays the downturn cycle from 1981 to 1984. The downturn cycle may be a better indicator of economic performance than the recession. A short downturn cycle means that the economy is resilient. A long downturn cycle means that the economy is unable to restore performance.

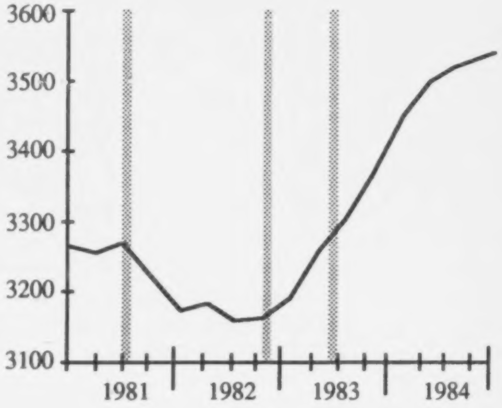
Figure 2
Real GNP 1972-1976
($ billions)



Measuring the Impact of a Downturn Cycle

One could ask whether we would be better with a sharp, deep recession and a quick recovery or a mild recession and a long recovery. One quick-and-dirty approach to the problem is GNP gap analysis. This type of analysis first was popularized in the 1960s. Again, referring to Figure 1, we present a GNP gap analysis for a hypothetical downturn cycle. The gap is the sum of GNP losses from the starting peak levels of GNP over the course of the downturn cycle and is represented by the shaded area.

Figure 3
Real GNP 1981-1984
($ billions)



In Table 1, the gap between real GNP over the downturn cycle is compared to peak GNP at the start of the cycle for two recent recessions. The losses are stated both as percentages and in real dollar terms. The total loss for the recovery cycle also is calculated, as is the average loss per quarter over the cycle.

The dates noted for the start and end of the recession are determined by the National Bureau of Economic Research. The months for the end of the recovery cycles are my own and are strictly rough estimates. The 1981-1983 recovery cycle was slightly shorter than the 1973-1975 cycle, but was more severe and more intense. The total loss was higher in 1981-1983; the loss per quarter was nearly half again as great as it was in the 1973-1975 period.

GNP gap analysis can be modified. One method is to allow for growth in potential GNP over the downturn cycle. The second is to analyze per capita GNP. Even the simple approach we have suggested here, however, is an improvement over the usual recession impact analysis—losses are examined over the full downturn cycle.

Some economists would argue that the gap analysis I have suggested overstates the cost of economic downturns. They argue that recessions have the beneficial impact of purging the economy of weak businesses. Furthermore, future economic growth rates would be enhanced by pruning those weak branches from the economic tree. I am not convinced by this botanical economics argument.

Table 1
Losses Due to Gap in Real GNP
($ billions)

Year and Quarter	Real GNP	Loss from Peak	Percentage from Peak	Notes
		1973-1975		
1973:IV	$2762.8			Peak (Nov.)
1974:I	2747.4	$15.4	0.6%	
1974:II	2755.2	7.6	0.3	
1974:III	2719.3	43.5	1.6	
1974:IV	2695.4	67.4	2.4	
1975:I	2642.7	120.1	4.3	Trough (Mar.)
1975:II	2669.6	93.2	3.4	
1975:III	2714.9	47.9	1.7	
1975:IV	2752.7	10.1	0.4	End (Dec.)
Total Loss		405.2	14.7	
Average Loss		50.6	1.8	8 Quarter Cycle
		1981-1983		
1981:III	$3264.6			Peak (July)
1981:IV	3219.0	$45.6	1.4%	
1982:I	3170.4	94.2	2.9	
1982:II	3179.9	84.7	2.6	
1982:III	3154.5	110.1	3.4	
1982:IV	3159.3	105.3	3.2	Trough (Nov.)
1983:I	3186.3	78.0	2.4	
1983:II	3258.3	6.3	0.2	End (June)
Total Loss		524.2	16.1	
Average Loss		74.9	2.3	7 Quarter Cycle

Housing Units in Nebraska

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Nebraska had a total of 660,621 housing units in 1990 according to the recent *Census of Population*. This total represents a gain of almost 35,800 units or 5.7 percent over 1980. Approximately 8.8 percent (58,258 units) were vacant at the time of the survey. The remaining 602,363 units are occupied by family and nonfamily households.

Comparisons of housing numbers for the nation, West North Central States (WNC), and Nebraska are shown below. Large increases in housing construction in southern and western areas of the Unites States are reflected in the 15.7 percent increase for the nation as a whole. The WNC states as a whole had a larger percentage increase than Nebraska, mainly due to extensive home construction in Minnesota, Missouri, and Kansas.

Housing units increased more rapidly than did the population. This trend is reflected in the decline in average household size. In 1990, the average number of persons living in a Nebraska household (occupied housing unit) was 2.54, down from 2.66 in 1980, 3.0 in 1970, and 3.2 in 1960. In 1990, 66.5 percent of the occupied housing units were inhabited by owners, compared with 68.4 percent in 1980. The percentage of housing units occupied by renters increased from 31.6 percent in 1980 to 33.5 percent in 1990.

Table 1
Selected Housing Data

Area	Total Housing Units (No.)	Percentage Change 1980-1990 (%)	Persons Per Household** 1980 (No.)	1990 (No.)
United States	102,263,678	15.7	2.75	2.63
WNC States*	7,464,752	9.0	2.68	2.55
Nebraska	660,621	5.7	2.66	2.54

*Includes Minnesota, Iowa, Missouri, North Dakota, Kansas, and Nebraska
**Per occupied housing unit

Review & Outlook

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National Outlook

A State of Confusion

It is no wonder that the general public doesn't have much faith in economists. Now when economists are needed the most, economists all are telling different stories. Some state that recovery will start "sometime this summer." Needless to say, this group is vague in their definition of the term *summer*. Some see a prolonged recession with no recovery until late this year. Others say we already are emerging from the recession.

The major problem is that we disagree about how recoveries begin. That is not unreasonable, as recoveries start in many different ways. It at times does appear, however, that economists simply are responding to each fresh news headline. Each group of economists (or, for that matter, nearly each economic forecaster) has favorite indicators to examine.

Allow me to cut through all the confusion by presenting my own favorite indicators. I then will attempt to so obfuscate the issues that you won't know where I stand. Such eloquence on my part will put me in the mainstream of current economic practice.

Major Indicators

Consumer Confidence - Both major measures of consumer confidence, one supplied by the Conference Board and the other supplied by the University of Michigan, rebounded in March when the war ended. Since that time, both indexes have shown some deterioration in consumer confidence. At this point, we remain well below year-ago levels. It is a great disappointment that consumer confidence has failed to progress from its March levels, for consumer confidence holds the key to our economic recovery.

Housing Starts - One of the few success stories in the early part of this year has been the recovery in housing starts. Although housing starts are still below the one-million-units-at-annual-rate level, it does appear that they at last have turned the corner. After setting a low in January, housing starts have made wobbly progress throughout the early months of this year. In April, housing starts advanced 6.2 percent. We must be somewhat cautious in viewing this result, however, because a recovery in housing starts can precede the economic recovery by several months. Further, housing start patterns are spotty. One region can soar while another is still in a downturn. April housing starts were strongest in the western region of the U.S., increasing 25.3 percent above a year ago.

Auto Sales - Perhaps the biggest disappointment has been the failure of auto sales to rally. There was a hope that returning troops would flock to the showrooms and buy new cars. Some may have visited their local, friendly real estate agent instead. A small advance in mid-May sales over the miserable levels of the year-ago period hardly is cause for rejoicing. The first half as a whole will be well below year-ago levels. It is difficult to envision any economic recovery whatsoever without a recovery in automobile sales. We all are waiting for that shoe to drop.

Other Major Indicators

The Industrial Production Index verifies the economic downturn. The Industrial Production Index is a concurrent economic indicator. Despite the 0.1 percent rise in April, industrial production is 3.4 percent below year-ago levels. Basically, the industrial production series has plateaued at a low level. This low is induced, in part, by low automobile production levels. Once again, a turnaround in auto sales with a commensurate turnaround in automobile production will help breathe life into the industrial production series.

Unemployment - There was a surprise in April. The unemployment rate statistics decreased 0.2 percentage points and stood at 6.6 percent. This figure widely is regarded as an aberration, and it broadly is expected that the unemployment rate will increase in May. You will see that report before you see the current issue of *Business in Nebraska* .

Table I
National Indicators

	Annual		Quarterly (SAAR)				
	1989	1990	1990:I	1990:II	1990:III	1990:IV	1991:I
Real GNP (% change)	2.5	1.0	1.7	0.4	1.4	-1.6	-2.6
Real Consumption (% change)	1.9	0.9	1.1	0.2	2.7	-3.4	-1.3
Housing Starts (millions)	1.4	1.2	1.4	1.2	1.1	1.0	0.9
Auto Sales (millions)	9.9	9.5	9.7	9.5	9.7	8.9	8.2
Interest Rate (90 day T-bill)	8.1	7.5	7.8	7.8	7.5	7.0	6.1
Unemployment Rate (%)	5.3	5.5	5.3	5.3	5.6	5.9	6.5
Money Supply, M2 (% change)	3.7	5.2	2.2	3.9	3.0	2.1	3.6
Industrial Production Index (1987=100)	108.1	109.2	108.3	109.4	110.5	108.5	105.8

NOTE; SAAR—seasonally adjusted at annual rates
Source: Bureau of Economic Analysis

Retail Sales - Retail sales in April dropped 0.1 percent. But the real story is that retail sales jumped in February and then leveled. Thus, as one would expect, the retail sales level is mimicking the behavior of the consumer confidence indexes.

An Obscure Index

One of my favorite obscure indexes is the paperboard production index. Paperboard widely is used to package a broad range of products and, thus, it is felt by some that it imitates what is happening in industrial production. After peaking in January, paperboard production plummeted. Currently, the March level of paperboard production is well below 1988 levels. The paperboard production series is an interesting one, but essentially it reflects the behavior of the industrial production series.

What We Can Expect From the Fed?

In the process of looking for a solution to the current malaise, many have focused on the Federal Reserve lowering interest rates as a cure-all. Not all economists agree with this prescription. For example, see the article by Craig MacPhee in the current issue of this newsletter.

The Fed can and does control short-term interest rates. Short-term rates are low, especially in comparison to rates in other countries. Changes in long-term rates are more vital to the economy. Long-term rates are affected less by short-term changes in monetary policy.

In my opinion, those calling for still lower interest rates only are diverting attention from our inability to get our federal government fiscal policy in order.

What Can Be Done?

There's an easy answer and a hard answer to this question. The easy answer is that we need to boost consumer confidence. The hard answer is the precise prescription for doing this. Because the problems in the Middle East were associated directly with the major rundown in consumer confidence, perhaps we could point to demonstrated progress toward peace in the Middle East as a great boost for failing consumer confidence. If consumer confidence can be increased, then an increase in automobile sales likely will follow.

Housing starts seem to be able to take care of themselves. They will respond and, for that matter, they have responded to lower long-term interest rates. The latter should result from a lowering of the overall inflation rate.

When will all of this happen? The simple answer is also the hard answer—who knows? An economic forecast is, in part, a political forecast. My heart hopes for a quick solution. My head tells me that it may take some time. It is possible that a recovery may not begin until late this year. For the time being, I'll ally myself with those calling for a summer (vaguely defined) start of a recovery. Is that obscure enough?

Other Economic News

There has been good news on the inflation front. Essentially, the energy price bubble that was experienced during the Middle East war has worked its way through the system. At this writing, in early June, west Texas crude intermediate wholesale prices are about $21.00 per barrel. Although that is greater than the $18.00 per barrel year-ago figure, it is well below the peak prices of the war.

Consequently, the Consumer Price Index advanced a mere 0.2 percent in April, a figure mirrored by the Producer Price Index. The Consumer Price Index was

Table II
Employment in Nebraska

	Revised March 1991	Preliminary April 1991	April % Change vs. Year Ago
Place of Work			
Nonfarm	752,416	760,418	4.7
Manufacturing	100,638	100,756	4.2
Durables	49,204	49,562	2.3
Nondurables	51,434	51,194	6.1
Mining	1,654	1,876	15.0
Construction	27,497	29,963	14.2
TCU*	45,546	45,660	0.3
Trade	188,400	190,827	3.0
Wholesale	51,277	51,903	-2.5
Retail	137,123	138,924	5.3
FIRE**	49,446	49,553	2.9
Services	189,238	191,415	8.3
Government	149,997	150,368	3.0
Place of Residence			
Civilian Labor Force	857,815	862,161	3.1
Unemployment Rate	2.8	2.4	

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table III
Price Indices

	April 1991	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	135.2	4.9	5.2
Commodities	126.4	4.1	4.3
Services	144.7	5.5	5.9
Producer Price Index (1982 = 100)			
Finished Goods	120.9	3.3	3.3
Intermediate Materials	114.0	1.1	2.0
Crude Materials	101.2	-1.4	-0.2
Ag Index of Prices Received (1977 = 100)			
Nebraska	160	-3.0	-2.8
Crops	118	-9.2	-10.9
Livestock	187	0.5	1.2
United States	149	-1.3	-3.0
Crops	131	0.0	-4.5
Livestock	166	-2.4	-2.2

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

Table IV
City Business Indicators
February 1991 Percent Change from Year Ago

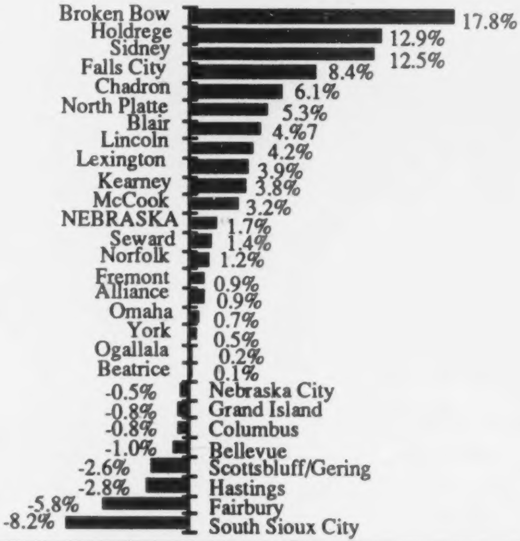
The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	3.1	-15.7
Alliance	0.5	97.9
Beatrice	0.4	-32.6
Bellevue	6.0	-44.2
Blair	6.0	99.0
Broken Bow	2.4	1739.8
Chadron	-2.3	408.4
Columbus	1.6	-20.2
Fairbury	3.7	-82.3
Falls City	0.9	-5.7
Fremont	-2.5	-23.8
Grand Island	2.0	8.2
Hastings	0.0	-23.5
Holdrege	5.8	76.8
Kearney	3.0	27.2
Lexington	-1.0	84.2
Lincoln	4.9	-5.1
McCook	5.4	4.1
Nebraska City	0.9	-64.7
Norfolk	-0.2	6.5
North Platte	-1.2	115.0
Ogallala	-2.2	149.0
Omaha	6.0	-29.9
Scottsbluff/Gering	3.6	-70.5
Seward	0.0	-32.6
Sidney	3.9	656.4
South Sioux City	4.2	-67.1
York	-3.3	58.9

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2) Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

Figure I
City Business Index
February 1991 Percent Change From Year Ago



4.9 percent ahead of the year-ago figure, while the Producer Price Index increased only 3.2 percent. For the time being, inflation worries are allayed somewhat.

The trade deficit showed one of the best figures in many years. The trade deficit showed an eight year low. This figure directly relates to what has happened to recent GNP figures. The latest figure for GNP shows a decrease of 2.6 percent in the first quarter. While the consumption sector was weak, especially consumer durables, the major weakness was in the investment block, both in the residential and nonresidential areas. The only strength shown in GNP was the net export figures. These strong net export figures kept the economy from plunging even deeper. If there had been no change in the net export figures, then first quarter GNP would have decreased about 4.0 percent.

The savings rate is essentially in the cellar. Latest data reveal that personal saving fell from 4.0 percent of disposable personal income in February to 3.7 percent in March. These are the lowest levels for saving since November 1988. See Wallace Peterson's article in this newsletter for an analysis of the saving problem.

Consumer credit fell 1.5 percent, seasonally adjusted at annual rates, in March. The consumer credit series has shown four consecutive months of continuing decrease. The consumer credit decreases reflect the overall malaise of the economy.

In the realm of good news, productivity advanced 1.0 percent in the first quarter. This is an unusual event in the midst of a recession. Typically, employers are slow to lay off employees in a recession. Lower production and excess employment then lower productivity levels.

The Nebraska Outlook

The job growth figure for the month of April showed another 4.7 percent increase above year-ago levels, continuing a string of such increases first noted in January. The workforce series has made a shift above last year's level. While most notable in the January figures, the shift began toward the end of last summer.

Only wholesale trade employment showed a downturn in April, dropping 2.5 percent versus year-ago levels. Big gainers were in the major employment series of services, showing an 8.3 percent rise, and construction, showing a 14.2 percent rise.

The rise in construction employment is mystifying, as construction contracts continue to lag behind last year's levels according to F.W. Dodge. Construction contracting set a blistering pace for the first nine months of last year.

At present, the total value of construction contracts is 21.0 percent below year-ago levels through the month of April. Nonresidential building is off 50.0 percent. Residential construction is down 15.0 percent, while nonbuilding construction advanced 3.0 percent.

Some signs of strength have begun to show in housing starts. For April, housing starts, a count of

Table V
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)		City Sales (2)		Region Sales (2)		
		February 1991 (000s)	% Change vs. Year Ago	February 1991 (000s)	% Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA		$810,739	6.9	$912,043	5.2	0.6
1	Omaha	283,780	3.6	339,688	1.5	-2.7
	Bellevue	10,950	2.2	*	*	*
	Blair	4,416	1.2	*	*	*
2	Lincoln	104,462	9.5	121,050	9.8	1.9
3	South Sioux City	5,042	-6.7	6,567	-4.9	-4.4
4	Nebraska City	3,603	13.9	16,091	5.5	2.0
6	Fremont	15,743	11.9	27,106	5.7	3.8
	West Point	2,829	11.7	*	*	*
7	Falls City	2,053	23.6	8,270	9.7	5.7
8	Seward	4,016	11.9	13,278	9.2	-0.7
9	York	5,262	3.5	12,249	-3.3	0.3
10	Columbus	13,742	3.2	25,408	4.7	2.1
11	Norfolk	16,509	6.6	29,423	1.1	3.1
	Wayne	2,818	18.1	*	*	*
12	Grand Island	29,959	-0.7	42,252	-0.2	-1.3
13	Hastings	13,785	0.8	22,542	3.5	2.3
14	Beatrice	7,310	8.7	15,846	2.9	-0.3
	Fairbury	2,443	6.3	*	*	*
15	Kearney	17,191	7.4	24,453	7.7	9.6
16	Lexington	5,657	7.6	14,542	2.5	2.6
17	Holdrege	4,650	22.1	7,575	11.8	6.9
18	North Platte	14,099	9.3	17,645	5.4	6.3
19	Ogallala	4,203	-3.7	9,422	-9.0	-6.6
20	McCook	6,818	5.6	9,660	9.1	7.1
21	Sidney	3,484	6.5	7,069	3.5	5.3
	Kimball	1,679	12.7	*	*	*
22	Scottsbluff/Gering	16,158	8.3	23,683	8.9	7.8
23	Alliance	4,412	-1.8	11,390	0.4	3.1
	Chadron	2,249	2.4	*	*	*
24	O'Neill	3,244	-5.5	11,631	1.1	5.2
	Valentine	2,362	17.1	*	*	*
25	Hartington	1,425	15.3	7,065	3.2	3.1
26	Broken Bow	3,317	10.5	9,998	-1.4	-1.1

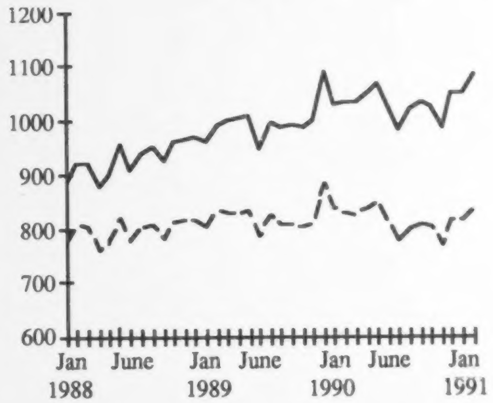
(1) See region map

(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales

*Within an already designated region

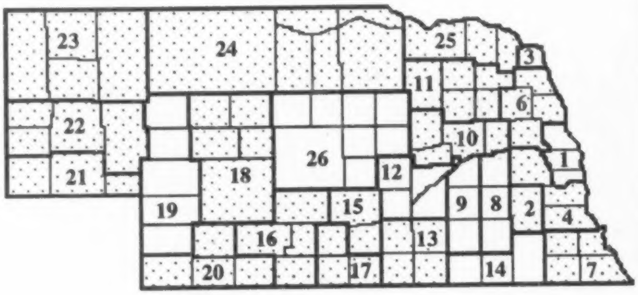
Compiled from data provided by the Nebraska Department of Revenue

Figure II
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure III
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

units, exceeded last year's levels for the first time this year. April was 6.0 percent ahead of last year's level. Nevertheless, housing starts on a year-to-date basis are down 32.0 percent versus year ago through April. January 1990 was a boom month. It will take some time to catch up with that flurry of activity.

The unemployment situation remains good in Nebraska. In March, Lincoln shared honors with Iowa City, Iowa for the lowest metropolitan unemployment rate in the nation. At that time, Lincoln's unemployment rate stood at 2.0 percent.

Lincoln's unemployment rate decreased in April to 1.9 percent. Nebraska as a whole continues to experience low unemployment levels, with the state averaging 2.4 percent for April, well under half the U.S. rate.

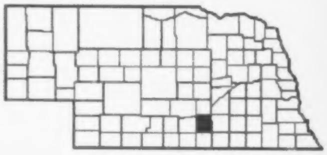
While there was some concern about moisture conditions early in the year, Nebraska has been experiencing one of the wettest springs in recent memory. All but the southeast crop reporting district showed above normal levels from April 1st through May 24th. There have been some planting problems resulting from the moisture levels, but the improvement in subsoil moisture is a relief to all.

Net taxable retail sales in Nebraska bounced back in February from their January doldrums (Table V). Overall sales increased 5.2 percent in February. The strength of the rebound was in the nonmotor vehicle area. The year total now shows a slight positive of 0.6 percent for the first two months versus last year. As inflation has been in the 5.0 percent area from early 1990 to 1991, real net taxable retail sales are still behind last year's levels (Figure II).

County of the Month

Adams

Hastings—County Seat



License plate prefix number: 14
Size of county: 562 square miles, ranks 68th in the state
Population: 29,625 in 1990, a change of -3.4 percent from 1980
Median age: 34.3 years in Adams County, 33.0 years in Nebraska in 1990
Per capita personal income: $16,256 in 1989, ranks 19th in the state
Net taxable retail sales ($000): $225,778 in 1989, a change of +2.4 percent from 1988; $33,773 during January-February 1990, a change of +1.7 percent from the same period one year ago
Number of business and service establishments: 881 in 1988; 52 percent had less than five employees
Unemployment rate: 2.6 percent in Adams County, 3.1 percent in Nebraska for 1989
Nonfarm employment (1989):

	State	**Adams County**
Wage and salary workers	705,672	14,194
	(percent of total)	
Manufacturing	13.4%	19.5%
Construction and Mining	3.6	3.6
TCU	6.5	3.6
Retail Trade	18.5	19.3
Wholesale Trade	7.6	8.2
FIRE	6.8	2.4
Services	23.7	24.2
Government	19.9	19.2
Total	100.0%	100.0%

Agriculture:

Number of farms: 780 in 1987, 747 in 1982
Average farm size: 470 acres in 1987
Market value of farm products sold: $103.4 million in 1987 ($132,537 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Business in Nebraska

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Economic Development or Economic Warfare?

F. Charles Lamphear
UNL Bureau of Business Research

States and even some communities are engaging in economic warfare in the name of economic development. Various locales are offering lush, up-front incentives in an effort to attract businesses. Up-front incentives mean that businesses do not have to wait until they have invested money and created jobs to receive benefits.

The economic development war is a bidding war, where players (e.g., states and communities) offer large tax breaks and subsidies to businesses in order to lure them to their areas.

For example, the State of Colorado in collaboration with the City of Denver is putting together a incentive package worth over $250 million to entice United Airlines to locate its maintenance base in the Denver area. Denver's willingness to offer such a large incentive likely is boosted by a recent loss in a bidding war with Houston for Continental Airlines' maintenance base.

The McDonnell Douglas Corporation successfully has orchestrated a public bidding war involving Kansas City, Tulsa, Salt Lake City, Shreveport, and possibly others. The estimated $1 billion plant will employ at least 5,000 highly paid workers to build the proposed MD-12X commercial aircraft. On August 6 Kansas City residents will vote on a proposed property tax increase to pay for about $90 million in improvements to a 600 acre tract near Kansas City International Airport to accommodate the needs of the MD-12X plant.

Insul-8 Corporation of San Carlos, California recently announced its decision to locate a plant in Iowa after considering Fremont, Nebraska. Iowa simply outbid Nebraska with $900,000 in up-front money.

Other examples are readily available, but the thrust is that states and communities are paying bounties to businesses to locate in their areas.

The Nebraska Department of Economic Development does not make direct payments of public funds to private businesses. The passage of LB840 in the last legislative session, however, will allow local jurisdictions to make direct payments of public funds to businesses if approved by a vote of the people. LB775, the 1987 Employment and Investment Growth Act, and the small business companion bill, LB1124, the 1987 Employment Expansion and Incentive Act, as amended by LB270 and LB335, provide tax benefits *after* a business has announced investment of money and the creation of jobs.

State Economic Scoreboard

Change from same month one year ago
See Review and Outlook for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (March) Constant $	↓ -7.5%	↓ -6.2%	↓ -8.6%
Nonmotor Vehicle Sales (March) Constant $	↑ 2.1%	↓ -7.9%	↑ 12.1%
Building Activity (March) Constant $	↓ -10.3%	↓ -22.5%	↑ 10.7%
Employment (May)	↑ 2.8%	↑ 3.8%	↑ 1.8%
Unemployment Rate* (May)	↑ 2.6%	↑ 2.5%	↑ 2.7%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

Three principal factors are driving states and communities to engage in bidding wars for business. These factors are slow national growth, outmigration, and growth in footloose industries. A footloose industry is locationally independent of any particular area.

Bidding wars intensify when the nation's growth rate slows. High levels of national economic growth increase the chances for all areas to share in growth. Low levels of national growth increase the risk that some areas may not grow or may decline. The significant slowdown in the nation's economic growth since the early 1980s has prompted many states and communities to intensify their efforts to stimulate growth.

Bidding wars also can occur as a result of the problem of human relocation. States and communities worry about having enough jobs available to absorb at least their natural increase in population. For the nation, natural increases in population are not a problem over and above the problem of maintaining full employment. The pattern of national growth may force workers to change jobs, industries, or even location, but it does not force them to leave the United States.

Finally, with footloose industry growth on the rise, more businesses are seeing the advantage of site shopping for incentive packages. The basic characteristic of a footloose business is independence of location. A footloose industry is not tied to any particular locale for material or labor inputs. The industry essentially can buy anywhere, sell anywhere, and move anywhere. Critics argue that footloose businesses have the capability to hold states ransom by publicly threatening to leave unless certain favorable economic conditions are granted. A threat to move its headquarters from Illinois, for example, won Sears, Roebuck concessions worth more than $200 million. All a footloose business needs is a viable alternative site that can be used as a bargaining chip.

The financial package offered to a prospective business often is determined by political factors rather than by socioeconomic benefits. The negotiating period often is too short to undertake an analysis of potential direct and indirect socioeconomic impacts.

Bidding wars in the name of economic development are dangerously out of control—at present, there appears to be no practical way to slow such wars. The bidding wars situation may get worse. Some have suggested that governors negotiate truces to bidding wars. This is as difficult as asking universities with successful athletic programs to limit recruiting to their respective states.

Long-term economic development goals should not be sacrificed completely for the immediate gains that bidding wars can bring. For example, the importance of infrastructure for long-term economic development long has been recognized.

The term *infrastructure* refers to transportation networks, sewage facilities, utilities, education, research facilities, etc. A quality infrastructure is essential for maintaining a strong competitive position. But the quality of a state's or a community's infrastructure can be jeopardized in the process of funding bidding wars.

At least two issues should be considered in formulating an economic development policy for a state and/or a community. The first issue is a workable definition of economic development. Because economic development suggests different things to different individuals, a standard definition is difficult to formulate.

The notion of what constitutes economic development is a state of mind. The definition can involve any formula that considers jobs, income, equity, health, wealth, competition, environment, etc. Economic development generally refers to the qualitative economic changes that accompany economic growth, such as improved prospects for further economic growth, preservation of desired regional and community socioeconomic characteristics, contribution to overall national economic well-being, and conservation of natural resources and the environment.

Some of the economic fruits of today's bidding wars probably would not fit this notion of economic development. But even here we have a problem. If one state chooses to define economic development differently from another, it could find itself playing a totally different game from neighbor states. Thus, states could lose in the competitive economic development game even if they are right about their notion of economic development.

The second issue to be considered in formulating policy is the philosophy behind economic development. One philosophical concern is the relationship between population mobility and economic efficiency. Populations are distributed over an economic landscape in certain rhythms and patterns that are neither arbitrary nor the workings of chance. They result rather from the interdependencies of a number of economic forces, such as the structure of demand, the level of technology, and the social and political organizations of the economy. If economic efficiency is a primary economic development goal, then it may be necessary to formulate policies that encourage migration and the evolution of new settlement patterns. Old settlement patterns of communities, towns, and cities in juxtaposition to each other give rise to new settlement patterns with possibly different functions and fewer (more) communities, towns, and/or cities.

Another philosophical consideration of economic development is economic well-being. Specifically, the issue deals with the extent to which an individual's well-being depends on the economic well-being of his or her region or community independent of his or her own situation.

Why Does Saving Matter?

Wallace C. Peterson, Professor of Economics, Emeritus
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Last month's *Business in Nebraska* examined the question of whether America was saving enough. The evidence showed a decline in American saving during the 1980s, a decline partially offset by foreign money flowing into the nation.

This month we turn to other equally important questions: Why does the saving rate matter? What difference does it make to you and other citizens? What can we do about the saving rate?

Saving is important for two fundamental reasons. First, saving represents the dollar value of resources available for investment by the society in real capital assets—structures and equipment. All societies progress by investing a part of their physical production in real capital in order to produce more in the future.

Second, investment in new physical capital is a major way to increase labor productivity. Labor productivity measures the efficiency with which we use labor in production. It is the key to an improved material standard of life, now and in the future.

Economists largely agree that there is a close correlation between both saving and investment and investment and productivity. If we want to understand the significance of the decline in saving, we have to examine what has happened to investment and productivity.

To understand the significance of the 1980s drop in saving, we need to see what happened earlier in the post-World War II period. Table 1 compares investment rates and productivity growth in the 1980s with the prior three decades, 1950-1979.

Column (1) tells us that the share of investment spending in GNP did not change much during the 1980s. The stability is due to gross investment, including both private housing and business spending for new capital. In the 1980s, housing investment grew relative to business investment.

The other columns tell a different story. The average rate of investment in new plant and equipment by business dropped 1.2 percentage points in the 1980s compared to the prior three decades. This drop is a 33 percent relative decline.

With respect to business buying of new equipment—a primary source for productivity gains—the rate fell from 2.0 percent to 1.4 percent of the Net National Product, a 40 percent relative decline.

The consequences of this trend appear in column (4), which shows a 50 percent decline in the annual average rate of growth of productivity in the 1980s compared to 1950 through 1979.

Do these decreases matter? More than most of us think. If worker productivity is growing at an annual average rate of 2.0 percent a year, then real output, not counting any increase in the labor force, will double in 35 years. It will take 70 years for real output to double if productivity grows only 1 percent a year. The fall in net business investment in structure and equipment during the 1980s provides a partial explanation for the deterioration in productivity growth in the economy. It is not the full story because the figures in Table 1 pertain only to the private sector of the economy.

David Aschauer, an economist with the Federal Reserve Bank of Chicago, supplies another piece of the productivity puzzle. His research shows a strong correlation between the decline in public investment in the nation's infrastructure and the decline in productivity. Infrastructure is a fancy word for highways, airports, electrical and gas works, schools, hospitals, water and sewer systems, and other basic facilities.

The nonmilitary public capital stock in the United States totals 45 percent of the stock of private capital. What Aschauer found is that the rate of growth in public capital dropped from an annual average of 4.1 percent between 1948 and 1969 to an annual average of 1.6 percent from 1970 through 1987.

The plus side of Aschauer's findings is that this is something that we, as citizens, can control. Most investment in public capital occurs at the state and local level. Thus, we can do something positive about decreasing productivity—if we really want to do something. For example, we can approve or reject bond issues at election time.

Table 1
Gross and Net Investment and Productivity
1950-1989
(Percent)

Period	(1) Gross Investment[a]	(2) Fixed Business Investment[b] Total	(3) Equipment	(4) Productivity Growth[c]
1950-1979	16.0%	3.6%	2.0%	2.0%
1980-1989	15.5	2.4	1.4	1.0

[a] Gross investment in housing, business structures, and equipment adjusted for changes in business inventories as a percent of the Gross National Product (GNP)

[b] Fixed investment in business structures and equipment net of depreciation as a percent of the Net National Product (NNP)

[c] Annual average rate of growth in output per hour for persons in the nonfarm business sectors

Source: *Economic Report of the President, 1991*

The Growing Earnings Gap

Lisa Valladao
UNL Bureau of Business Research

Pay gaps between U.S. workers, particularly men, have been rising steadily since at least 1958. Pay gaps—the differences in pay between workers at various earnings levels—widened at an unusually rapid pace for both men and women across several demographic, industrial, and occupational categories in the 1980s, however, according to a report in the *Monthly Labor Review* published by the U.S. Department of Labor.

Pay gaps can be gauged best by examining the annual earnings of full-time workers employed year-round because such data are affected less by variations in part-time and seasonal earnings.

Table 1
Distribution of Earnings for Full-Time, Year-Round Workers by Sex, Race, and Hispanic Origin
1978 and 1988

	Percent Share of Aggregate Earnings				
	Top Fifth	Second Fifth	Third Fifth	Fourth Fifth	Bottom Fifth
Black Men					
1978	34.0	24.7	19.3	13.8	8.2
1988	39.3	23.9	17.3	12.5	7.1
Black Women					
1978	33.1	23.7	18.8	14.8	9.5
1988	35.5	24.2	18.6	13.5	8.3
White Men					
1978	37.4	23.2	18.3	13.6	7.6
1988	40.2	23.2	17.5	12.5	6.7
White Women					
1978	33.3	23.5	18.9	14.9	9.4
1988	37.4	23.6	17.9	13.4	7.8
Hispanic Men					
1978	35.5	23.7	18.2	13.8	8.8
1988	40.9	23.4	16.7	12.0	7.0
Hispanic Women					
1978	32.9	23.7	18.8	14.9	9.7
1988	38.0	23.6	17.5	13.0	8.0

The wage and salary categories in Table 1 were created by ordering workers from the lowest earnings level to the highest earnings level. Workers then were grouped in blocks (fifths) containing 20 percent of the total workers. Income ranges within each block changed from 1978 to 1988 in line with the rate of wage inflation.

Demographic Categories

From 1978 to 1988 the mean earnings of black, white, and Hispanic men and women working at least 35 hours per week, 50 or more weeks per year, increased substantially. When each category of earner is divided into five earnings levels (Table 1), however, the earnings share of the top fifth—the highest earnings level—increased in each category. The earnings share of the lowest three-fifths, on the other hand, decreased in each category. The share of the second fifth—the second highest earnings level—remained nearly constant.

To illustrate this phenomenon in terms of actual dollars, in 1978 an average male worker in the bottom fifth earned $9,847. His average counterpart in the top fifth earned $23,294. The percentage difference or earnings gap between the two was 137 percent. By 1988 the gap had widened to 172 percent. The worker in the bottom fifth earned $15,548, whereas his counterpart in the top fifth earned $42,246. The average earnings of the worker in the bottom fifth increased 58 percent, while the average earnings of the worker in the top fifth increased 81 percent over the same period.

Although the actual earnings of the worker in the bottom fifth increased from 1978 to 1988, his share of the total distribution of earnings (his piece of the percentage pie) decreased. The worker in the top fifth received pay increases during the period and acquired a *larger* share of the total distribution of earnings (or a bigger piece of the percentage pie).

Industrial Categories

The earnings gaps for men increased from 1978 to 1987 in every industry except agriculture. The most substantial growth in the earnings gaps among male workers occurred in manufacturing and retail trade. Table 2 presents earnings distributions in selected categories. Categories showing significant increases in earnings gaps for women and men are highlighted.

Earnings gaps among women grew in fewer industrial categories from 1978 to 1987, but the overall widening is unmistakable. Manufacturing and professional and related services showed the largest increases in earnings gaps among female workers.

Occupational Categories

Overall, the earnings share of blue collar occupations increasingly lost ground to the earnings share of white collar occupations from 1980 to 1989.

Within specific occupations the trend toward increasing earnings gaps also is evident. Earnings gaps increased at least slightly in every occupational category for both men and women from 1982 to 1988. The greatest gap increases for both sexes occurred in the technical, sales, and administrative support occupational category.

Disproportionate increases in male earnings in the 1980s were registered by salaried administrators and private industry officials within the managerial and professional occupational category. This group of earners, which includes financial managers, personnel directors, and advertising executives, accounted for approximately one-third of all managerial and professional workers. Not only did the group receive salary increases that were greater in percentage terms than increases awarded to others within the managerial and professional field, but the number of workers in the group increased nearly 950,000 between 1982 and 1987.

Significant increases in female earnings gaps were found in sales occupations. Here again, the earnings of workers in the top fifth diverged substantially from their counterparts at lower earnings levels.

In general, individuals at the higher levels of pay and responsibility received higher percentage pay increases than did those at lower levels within the same occupation. Nowhere is this more evident than in the service occupations. Although service occupations typically pay less than do production and managerial and professional occupations, service workers at the top fifth earnings level gained as much or even more ground than did workers at the top fifth earnings level in both production occupations and managerial and professional occupations.

A recent survey showed that the 1989 average compensation of chief executive officers of major corporations was $1,856,697—a figure three times as high as the 1980 average compensation for CEOs. The average increase for all male full-time workers during roughly the same period was approximately 66 percent. The startling increase in CEO compensation may have had a trickle-down effect on the compensation of other high level corporate workers.

Possible reasons for the rapidly growing earnings gap in the 1980s vary. Some analysts see earnings gaps resulting from the movement from an industrial economy to a service-oriented economy. Others see earnings gaps resulting from the divergence in the returns to education (that is, the value of different levels of educational achievement). The widening of earnings gaps may indicate a divergence in the quality of available jobs, gaps in the earnings potentials of individuals, or a combination of the two.

Author Robert Reich suggests in a recently published book entitled *The Work of Nations: Preparing Ourselves for 21st Century Capitalism* that the class structure of the workforce has changed. The change is the result of the changing nature of products; high volume, standardized products have become secondary in importance to customized products. Those individuals whom Reich calls "symbolic analysts" who possess the ability to work creatively with their minds in developing these customized products increasingly are coming to own the largest share of resources, whereas those individuals expending their efforts producing traditional standardized goods increasingly are losing shares of resources.

Whatever the causes, the widening of the earnings gap is unmistakable. Whether the trend will continue is unclear. The growing earnings gap cannot be viewed as an isolated incident, however, but must be viewed as an indicator of America's changing economic and social climate.

Table 2
Distribution of Earnings for Women and Men in Selected Industries 1978 and 1987

	Percent Share of Aggregate Earnings				
	Top Fifth	Second Fifth	Third Fifth	Fourth Fifth	Bottom Fifth
Manufacturing					
Women					
1978	31.6	23.2	18.9	15.4	10.9
1987	35.6	23.5	17.9	13.9	9.1
Men					
1978	33.9	23.3	19.0	14.7	9.1
1987	36.7	23.4	18.2	13.7	8.0
Personal Services					
Women					
1978	39.1	25.0	18.4	12.7	4.8
1987	39.8	24.1	17.4	12.7	6.0
Men					
1978	40.6	23.1	17.1	12.5	6.6
1987	41.8	23.6	17.0	11.7	5.9
Retail Trade					
Women					
1978	34.1	23.8	18.5	14.9	8.7
1987	38.0	23.8	17.5	13.3	7.4
Men					
1978	38.6	23.5	17.7	13.1	7.1
1987	41.3	23.6	17.1	11.7	6.2
Professional and Related Services					
Women					
1978	32.9	23.4	19.0	14.9	9.9
1987	34.9	23.8	18.5	14.2	8.6
Men					
1978	42.7	21.7	16.3	12.0	7.3
1987	43.7	22.6	16.3	11.5	6.0
Agriculture					
Women					
1978	49.6	25.7	15.5	7.6	1.7
1987	45.2	24.9	18.5	9.6	1.8
Men					
1978	47.6	24.5	16.1	9.5	2.3
1987	47.2	23.7	15.5	10.3	3.3

Nebraska's Lodging Industry

John S. Austin
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While Nebraska has slightly more lodging places than one would expect based on its population relative to the total U.S., these places tend to be smaller, have lower receipts per guestroom, and pay lower wages than the national average. In contrast, Nebraska lodging places have more guestrooms per employee and tend to garner higher proportions of their total receipts from guestroom rents and from meals than the national averages. These and other fascinating facts can be gleaned from the *Census of the Service Industries, 1987*, recently released by the U.S. Bureau of the Census.

Table 1 presents data for the U.S. and Nebraska lodging industries with some analytical ratios. Whether we look at the total lodging industry or just the hotel/motel portion, the same picture emerges. Nebraska lodging places have lower receipts per establishment and fewer employees per establishment. The average annual payroll is lower, as are receipts per employee.

Because Nebraska has low population density, it should come as no surprise that Nebraska hotels and motels tend to be smaller than the national average. Nebraska hotels and motels average 50 rooms, while the corresponding national average is 71 rooms. Nebraska's rent per guestroom and total receipts per guestroom are 55 percent and 65 percent of their respective national averages. The average Nebraska guestroom generated $6,910 in guestroom rents in 1987.

Further, Nebraska is underrepresented in the bigger hotels and motels of 25 rooms or more. Less than one-third of Nebraska establishments fall into the larger size class. The national average is over half. Even those Nebraska establishments in the larger size class are relatively small, averaging just under 100 units, while the national average of the larger complexes is 143 units.

Nebraska's hotel and motel operations are more focused on the room rental aspects of the business than are their national counterparts. Over 70 percent of Nebraska's hotel and motel receipts come from room rentals versus about 60 percent for the nation. Nebraska also has a slightly higher proportion of receipts from food business. The residual category of *other revenues* covers a host of activities including telephone receipts and the sale of merchandise. Also included in the residual category are items such as gambling receipts in Nevada and New Jersey.

The census of services is taken once every five years. While the data are somewhat dated by press time, the census is comprehensive. The dollar figures in particular are dated, but the relative size of Nebraska receipts to U.S. receipts is likely to be relatively stable.

Table 1
Lodging Receipts and Payrolls
1987

	Establishments #	Receipts per Establishment $	Employees per Establishment #	Payroll per Employee $	Receipts per Employee $
Total Lodging					
U.S.	46,793	1,108,387	30.1	10,244	36,763
Nebraska	373	465,547	18.1	6,565	25,703
Nebraska as a Percent of U.S.	0.8%	42.0	60.1	64.1	69.9
Hotel/Motel Only					
U.S.	40,424	1,246,096	34.1	10,241	36,495
Nebraska	347	491,138	19.3	6,516	25,459
Nebraska as a Percent of U.S.	0.9%	39.4	56.6	63.6	69.8

All tables based on data from U.S. Bureau of the Census, *1987 Census of the Service Industry, Hotels, Motels, and Other Lodging Places*. Employees include full-time and part-time workers

Changes in Nebraska Households During the '80s

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UNL Bureau of Business Research

Nebraska households increased 29,748 (5.2 percent) units from 1980 to 1990, according to the U.S. Bureau of Census. During this period, nearly 97 percent of household growth occurred in the nonfamily household category. The Bureau of the Census defines a *nonfamily household* as a household where the householder lives alone or with nonrelatives only. A *family household* includes a householder that lives with one or more relatives. All households have one person designated as the householder.

The number of family households in Nebraska showed a meager increase of 924 units (0.2 percent) during the past decade. Change in the mix of family households, however, was more pronounced. The number of married couple families decreased 13,658 (-3.7 percent). That decrease was offset by increases in households where the householder had no spouse present. Where the householder was male without a spouse present, the number of households increased 35.5 percent during the 1980s. Meanwhile, housing units occupied by female householders without a spouse present increased 27.7 percent during the decade.

By 1990, there were nearly 187,000 nonfamily households in Nebraska, an increase of about 28,890 (18.2 percent) during the decade. Further, over 21,000 of the additional nonfamily households were inhabited by householders living alone, bringing the state total to more than 159,000 in 1990. This is about 10 percent of the total population. Of the nonfamily householders living alone, nearly 70,000, or 44 percent of the total, were at least 65 years of age, an increase of nearly 7,000 (11 percent) during the 1980s.

All of the above 1990 data were obtained from preliminary *Census of Population* profiles and are subject to revision. Even if the numbers are revised, however, the general trends and changes occurring during the decade will remain. Similar stories likely will be written about other geographic areas.

Table 1
Changes in Nebraska Households
1980-1990

	1980	1990	Change 1980-1990	
	#	#	#	%
Households, Total	572,615	602,363	29,748	5.2
Family Households (Families)	414,503	415,427	924	0.2
Married Couple Families	364,172	350,514	-13,658	-3.7
Other, Male Householder	10,880	14,738	3,858	35.5
Other, Female Householder	39,451	50,175	10,724	27.2
Nonfamily Households	158,112	186,936	28,824	18.2
Householder Living Alone	138,560	159,671	21,111	15.2
Householder 65 Years & Over	62,670	69,640	6,970	11.1
Persons Living in Households	1,521,332	1,530.832	9,500	0.6

Everything You Always Wanted to Know About Nebraska ...

Did you realize that Nebraska's state rock is the prairie agate? That the honeybee is our state insect? That three Nebraskans have won Nobel prizes? That the nation's first 911 emergency system was developed in Lincoln? That Charles Lindbergh learned to fly in our capital city?

The *Nebraska Blue Book 1990-91* contains these interesting tidbits plus a wealth of other information about the Cornhusker State. The focus of this publication is government in the state at the federal, state, county, and municipal levels. Other sections of the book highlight Nebraska's education and information resources and political parties and elections.

For a copy of the *Nebraska Blue Book 1990-91*, contact the Clerk of the Nebraska Legislature's Office, Room 2018, State Capitol, P.O. Box 94604, Lincoln, NE 68509-4604, phone 402/471-2788 or 401/471-2220.

Review and Outlook

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National Outlook

The Shoe is Dropping

Last month's Review & Outlook section mentioned that we were waiting for the shoe to drop; specifically, we were waiting for a turnaround in automobile sales. Now we can report that the shoe is dropping.

Although there have been many signs that the end of the recession is forthcoming, perhaps the most promising sign is the recovery in auto sales. Sales started to improve in late May. For the last 50 days at this writing, auto sales have been improving. Thus, auto sales appear to have bottomed in late April or early May. The report for the last ten day sales of June brought near euphoria to the auto industry. Domestic sales for the period were 10.1 percent below a year ago, but they set a new high for 1991 at 7.4 million units at annual rates. Domestic sales totalled 6.7 million units in June, following May and April totals of 6.1 million units and 5.5 million units. June imports sold at a 2.2 million rate, the same as last year, for a respectable June total of 8.9 million units.

Many have commented that this particular recession has been highly concentrated and aimed largely at the auto and housing industries. Housing starts have stopped dropping. There has not been much evidence of a recovery, however, with the May figure advancing only 0.1 percent. Housing starts have barely risen from their trough level.

Table I
Employment in Nebraska

	Revised April 1991	Preliminary May 1991	May % Change vs. Year Ago
Place of Work			
Nonfarm	760,082	768,808	4.4
Manufacturing	100,749	100,924	4.1
Durables	49,465	49,426	1.8
Nondurables	51,284	51,498	6.4
Mining	1,878	1,921	12.1
Construction	30.027	32,022	16.2
TCU*	45,721	45,994	.4
Trade	190,693	192,160	2.7
Wholesale	51,941	52,269	-2.3
Retail	138,752	139,891	4.7
FIRE**	49,505	49,674	2.9
Services	191,027	192,306	8.1
Government	150,482	153,807	2.0
Place of Residence			
Civilian Labor Force	862,068	875,161	3.7
Unemployment Rate	2.4	2.6	

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Supporting the good news in auto sales is an increase in personal income. May personal income rose 0.5 percent above April levels. Removing the effects of inflation, personal income rose 0.3 percent. The gain in personal income was outpaced by an increase in consumer spending of 1.1 percent. This increase followed an April increase of 0.4 percent. Economists who argue that the second quarter will record an increase in real GNP base their arguments largely on the growth in consumer spending.

Saying that autos and housing starts have shown signs of recovery is not to say that the entire economy has turned the corner. Auto sales and housing starts are leading economic indicators. We could look at some of the coincident indicators to see if we can judge whether the total economy has turned.

The Industrial Production Index, a coincident indicator, has stopped dropping. In April the index rose 0.3 percent. It rose again 0.5 percent in May. Up to this point, industrial production has been restrained by low output levels in the auto industry. In the second quarter auto production was 16.1 percent below its year-ago figures. Current third quarter auto industry plans call for production 6.2 percent below year-ago levels.

Retail sales have started to improve. Retail sales increased 1.0 percent in May and are nearly back to their November peak levels. These figures are in current dollar terms and are not adjusted for inflation. Constant dollar retail sales still are below their previous peak.

Employment advanced marginally in June. As a whole, second quarter employment levels were above those of the first quarter. Jobless claims have begun to slow, and the unemployment index has risen only marginally to 7.0 percent.

Other Economic News

Machine tool orders are at their lowest levels since 1987. The May figures show that, once again, the auto industry is a prime reason for low levels of activity. Machine tool orders tend to lag an economic recovery.

Durable goods orders have been up in both April and May, but are well below their year-ago levels. The low for the durable goods series appears to have been in March. Durable goods orders are leading economic indicators.

There is continuing concern that consumer confidence has not recovered from its spring malaise. The Conference Board Index was 74.2 in May, down from 79.4 in April. The post-Gulf War euphoria apparently has dissipated. Consumers need a lot more good economic news before consumer confidence recovers. The relapse in consumer confidence is in direct opposition to May's consumer spending report. Consumers spent 1.1 percent more in May than they spent in April. Thus, their expenditure increase outpaced the income gain, a condition that cannot be maintained.

Inflation rates have remained moderate. In May, the Producer Price Index advanced 0.6 percent, while the Consumer Price Index advanced 0.3 percent. Most of the reductions in energy costs have worked their way through the commonly available price indices at this time. West Texas intermediate crude now stands in the $20-per-barrel area.

Jobless claims have been falling for three weeks in a row through mid-June. The highest week was that of March 23, when jobless claims stood at 543,000. For the week ending June 15 jobless claims were down to 431,000.

The final figure for first quarter GNP is -2.8 percent. This final figure will not be revised until the July revision is published.

A Divided House

Economists remain divided over whether the economy has turned the corner, although the division has narrowed in the last month. Now there appears to be a split between those who say the recovery has started and those who say the recovery will begin this summer. Those who believe in a long, delayed recovery have been silenced.

At times like this, watching the economy is like watching an ocean liner turn. The ship doesn't appear to be moving, but over a span of time we start to notice that it is changing direction as it passes some reference points. Frankly, the argument over whether the economy has turned the corner is of little real interest. The debate provides some sport for economists and the media, but in the long sweep of history it will make little difference whether the recession trough was reached in May, June, or July.

Weak Recovery

Although there is a lack of consensus over the precise timing of our recovery, there appears to be more agreement that the forthcoming recovery will be a slow one. Most central to the slow recovery thesis is that the recession was not severe. Instead of a typical boom-bust recession, we had a pop-fizzle one. The initial recovery steps will be small, simply because we will start from a place not all that low. Other reasons given for the expected slow recovery vary, but the central ones are as follows.

The Federal Reserve will continue to favor a gradualist monetary policy and, thus, will not be seen as an engine of recovery. It already widely is believed that the Federal Reserve is content to leave short-term interest rates at their current levels and does not intend to stimulate the economy further by an additional lowering of rates.

Indebtedness from the 1980s is still with us and has not been shaken by the recession time-out. This carryover means that consumers and businesspersons will be using more of their income for debt repayment rather than for expansion.

Table II
Price Indices

	May 1991	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	135.6	5.0	5.1
Commodities	126.8	4.4	4.3
Services	145.0	5.4	5.8
Producer Price Index (1982 = 100)			
Finished Goods	121.7	3.4	3.4
Intermediate Materials	114.1	1.1	1.8
Crude Materials	102.2	-1.9	-0.7
Ag Index of Prices Received (1977 = 100)			
Nebraska	158	-6.5	-3.5
Crops	116	-14.1	-11.4
Livestock	185	-3.1	0.3
United States	152	-1.3	-2.6
Crops	137	2.2	-3.2
Livestock	166	-4.0	-2.6

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

The government sector is unlikely to be a stimulus. The federal government is under obligation to honor last year's budget compromise resolution. State and local governments are not in an expansion mode, but are considering and implementing spending cuts.

The net export activity of the U.S. may slow somewhat in coming years. Many have argued that exports had helped to hold the economy up longer than expected and, thus, delayed the start of the recession last year. Today's climate is not so favorable to exports. The dollar has gotten stronger, and export customers, particularly Western Europe, are showing some signs of weakness.

We can conclude from the above that this time around, the recovery will be consumer led. The data on spending, particularly recent auto sales data, indicate that the consumer may be willing to shoulder the load.

Nebraska Outlook

The USDA's outlook for agriculture shows that the winter wheat harvest will return production of winter wheat to 1989 levels. Nebraska is a relatively small player in the winter wheat market, with only 5 percent of total winter wheat; nevertheless, the winter wheat market is important to some Nebraska farmers. It is anticipated that end-of-the-year stocks will be reduced by lowered production levels and, as a result, prices will rise above last year while remaining below 1989 levels.

Corn is expected to show a moderate increase of about 4 percent in total supply, according to USDA.

Table III
City Business Indicators
March 1991 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	2.6	-10.3
Alliance	-0.9	76.5
Beatrice	-0.3	-9.5
Bellevue	5.6	-36.3
Blair	5.6	21.2
Broken Bow	1.4	232.3
Chadron	-1.8	577.9
Columbus	0.7	-29.7
Fairbury	3.3	-34.7
Falls City	0.2	52.1
Fremont	-3.1	-41.4
Grand Island	1.2	40.1
Hastings	-0.5	-24.0
Holdrege	4.6	12.9
Kearney	1.5	52.3
Lexington	-1.9	10.2
Lincoln	3.8	-11.4
McCook	5.7	-7.7
Nebraska City	-0.3	-40.3
Norfolk	-0.8	97.3
North Platte	-1.7	115.3
Ogallala	-2.7	55.1
Omaha	5.6	-27.6
Scottsbluff/Gering	3.3	-67.8
Seward	-0.6	-11.9
Sidney	3.3	833.7
South Sioux City	2.6	-34.3
York	-4.2	33.0

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2) Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

About half of this increase should go to inventory, with prices running between $1.95 and $2.35 per bushel.

As of June 1, cattle on feed are well ahead of last year. Nebraska's cattle on feed numbers change leadership position with Texas. Currently, the number of Nebraska cattle on feed at 2,160,000 is just slightly below the Texas holdings. The Nebraska figure is about one-fourth of the seven states reporting cattle-on-feed numbers. Thus, Nebraska's role as a cattle-feeding state has become even clearer.

The good news for Nebraska's cattle producers contrasts to the outlook for the nation's agricultural income as a whole. USDA recently revised its outlook for farm income $2 billion downward, leaving their estimate for 1991 farm income in the range of $40 billion to $45 billion. That range contrasts to a 1990 figure of $47 billion. The cattle industry remains strong. Grain producers are characterized as being in a break-even situation, with high production and low prices. Agriculture credit has tightened as the likelihood of more farm failures later this year increases.

The torrid pace of Nebraska's job expansion slowed only slightly in May. Nevertheless, the total number of jobs advanced 4.4 percent versus May of last year. The biggest gainer was construction, advancing 16.2 percent. The second largest gain was services at 8.1 percent. Of all major categories, only wholesale trade showed weakness, falling 2.3 percent.

Nebraska's May unemployment rate showed a marginal advance to 2.6 percent. Again, that figure is well under half the U.S. rate of unemployment.

Retail sales has been the one area consistently showing the effect of the recession upon Nebraska's economy. Nebraska's retail sales reports continue in their doldrums. These reports lag considerably. We now are reporting data for March. Total net taxable retail sales fell 3.2 percent in March below its year-ago levels. On a year-to-date basis, retail sales are 0.8 percent below year ago. Once again, we are waiting for a recovery in consumer confidence to lead us out of our retail sales rut.

Discouraged Workers

Lisa Valladao
UNL Bureau of Business Research

In the first quarter of 1991, more than 5.8 million individuals wanted jobs but did not actively seek jobs. 3.7 million were women; 2.1 million were men. Reasons given for not seeking employment varied, but over 1 million of those individuals felt such efforts would be in vain. The number of discouraged female job seekers rose 142,000 from the first quarter of 1990, while the number of their male counterparts rose 72,000.

Some of the increase in the number of discouraged workers is due to the effect of recession on expectations of job opportunities. As a recession takes hold, expectations are lowered. The number of individuals seeking employment decreases in the face of these lowered expectations.

Of the women who desired but did not seek employment in the first quarter, 611,000 (17 percent) felt that they simply could not get a job. Home responsibilities and school attendance were the other reasons given by women for not seeking employment.

Of the men who desired but did not seek employment during the same period, 428,000 (20 percent) felt that employment-seeking efforts were futile. School attendance and illness were the other main reasons given by men for not seeking employment.

Individuals who are out of work but actively seeking employment are considered unemployed. Unemployed individuals are counted as part of the labor force. Individuals who are not employed and not actively seeking employment are not counted among the unemployed and, thus, are not part of the labor force. The discouraged workers referred to here belong to the latter category of individuals not in the labor force.

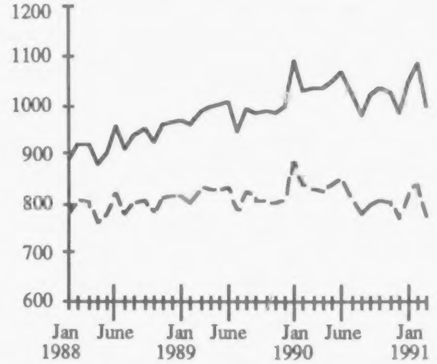
Table V
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)		City Sales (2) March 1991 (000s)	City Sales (2) % Change vs. Year Ago	Region Sales (2) March 1991 (000s)	Region Sales (2) % Change vs. Year Ago	Region Sales (2) YTD % Change vs. Year Ago
NEBRASKA		$897,361	-3.0	$1,021,432	-3.2	-0.8
1	Omaha	299,044	-4.6	371,402	-3.9	-3.2
	Bellevue	12,919	3.1	*	*	*
	Blair	4,754	-2.2	*	*	*
2	Lincoln	119,032	-1.9	136,714	-3.0	0.1
3	South Sioux City	5,551	-11.5	7,498	-11.5	-7.1
4	Nebraska City	4,043	9.2	19,017	-0.7	1.0
6	Fremont	16,654	1.4	31,020	1.0	2.8
	West Point	3,193	5.1	*	*	*
7	Falls City	2,595	10.2	9,729	-0.7	3.3
8	Seward	4,362	-13.3	15,167	-5.7	-2.5
9	York	6,804	0.8	16,212	1.7	0.9
10	Columbus	15,139	-4.4	27,976	-4.7	-0.4
11	Norfolk	18,814	-3.1	34,521	-4.0	0.5
	Wayne	3,333	19.8	*	*	*
12	Grand Island	33,921	-5.2	47,835	-6.5	-3.3
13	Hastings	16,015	1.2	26,705	-2.0	0.7
14	Beatrice	8,255	-3.3	18,712	-5.3	-2.1
	Fairbury	2,718	-2.1	*	*	*
15	Kearney	19,721	-1.7	27,768	-2.8	4.9
16	Lexington	6,103	6.0	16,763	-2.3	0.8
17	Holdrege	5,141	7.9	8,894	-1.5	3.7
18	North Platte	16,084	7.1	20,689	6.1	6.2
19	Ogallala	5,099	-11.0	10,521	-10.9	-8.2
20	McCook	7,828	-4.4	11,324	-4.2	2.8
21	Sidney	3,529	-5.2	7,610	-3.5	2.2
	Kimball	1,688	-5.1	*	*	*
22	Scottsbluff/Gering	18,312	-2.7	25,793	-2.9	3.8
23	Alliance	5,103	-0.4	13,384	1.2	2.5
	Chadron	2,690	2.2	*	*	*
24	O'Neill	4,219	2.6	14,708	-0.3	3.2
	Valentine	2,568	9.0	*	*	*
25	Hartington	1,644	-7.9	8,919	1.3	2.4
26	Broken Bow	3,727	15.2	11,957	2.1	0.0

(1) See region map
(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales
*Within an already designated region

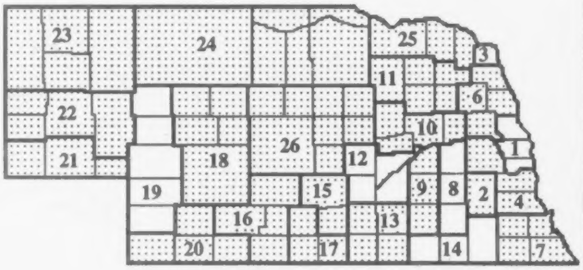
Compiled from data provided by the Nebraska Department of Revenue

Figure I
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure II
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

The U.S. Postal Service in 1990

Merlin W. Erickson

UNL Bureau of Business Research

The U.S. Postal Service handled 166.3 billion pieces of mail during fiscal year 1990. This was an increase of 2.9 percent over the previous 12 month period ending on September 3, 1989 according to the fiscal year 1990 annual report of the Postmaster General.

The total weight of the fiscal year 1990 mail volume was estimated at more than 18.8 billion pounds. The volume of mail is estimated to be 666 pieces, weighing approximately 75 pounds on an annual per capita basis. Based on these annual per capita measures, a four-person household would receive over 2,660 pieces of mail weighing a total of about 300 pounds.

Total mail revenue in fiscal year 1990 was almost $37.9 billion. The following chart shows the volume, weight, and revenue by class of mail in fiscal year 1990. The measures are shown as a percentage of the total.

Table 1
Volume and Weight of U.S. Mail
Fiscal Year 1990

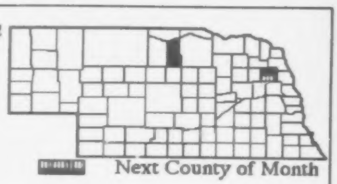
Class of Mail	Pieces of Mail	Weight	Revenue
	------------Percent of Total------------		
First-Class	53.7	17.7	63.4
Second-Class	6.4	22.5	4.0
Third-Class	38.3	40.6	21.3
Fourth-Class	0.4	11.2	2.4
Other*	1.2	8.0	8.9
Total	100.0	100.0	100.0

*Includes Priority and Express Mail, Mailgrams, and International Surface and Air Mail

County of the Month

Rock

Bassett—County Seat



License plate prefix number: 81

Size of county: 1,017 square miles, ranks 15th in the state

Population: 2,019 in 1990, a change of -15.3 percent from 1980

Median age: 36.8 years in Rock County, 33.0 years in Nebraska in 1990

Per capita personal income: $15,162 in 1989, ranks 37th in the state

Net taxable retail sales ($000): $11,988 in 1990, a change of +6.6 percent from 1989; $2,559 during January-March 1991, a change of -1.6 percent from the same period one year ago

Number of business and service establishments: 55 in 1988; 60 percent had less than five employees

Unemployment rate: 2.0 percent in Rock County, 2.1 percent in Nebraska for 1990

Nonfarm employment (1990):

	State	Rock County
Wage and salary workers	731,108	576
	(percent of total)	
Manufacturing	13.5%	5.4%
Construction and Mining	3.8	2.6
TCU	6.3	2.4
Retail Trade	18.4	13.3
Wholesale Trade	7.2	26.4
FIRE	6.6	3.1
Services	24.4	14.7
Government	19.7	32.1
Total	100.0%	100.0%

Agriculture:

Number of farms: 313 in 1987, 309 in 1982

Average farm size: 1,862 acres in 1987

Market value of farm products sold: $36.2 million in 1987 ($115,780 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Business in Nebraska

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Nebraska's Cattle Industrial Complex: A Giant by any Measure

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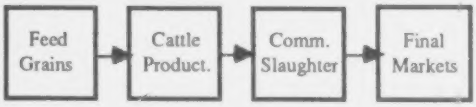
The Cattle Industry Record

Nebraska's cattle industrial complex is a giant by any measure, and it grows larger each year. The key parts of the complex are feed grains production, cattle production, and commercial slaughtering plants.



Nebraska placed 5.46 million head of cattle on feed in 1990 and led the nation in the number of fed cattle marketed. Nebraska, a forage-rich state producing about 17 million animal-unit-months annually, raises more than a third of its feeder cattle placements.

The state's 1990 cash receipts from cattle marketings topped $4.8 billion, about 55 percent of total agricultural receipts.

Nearly 5.9 million head of cattle were slaughtered commercially in Nebraska in 1990, ranking second only to Kansas. Nebraska's share was 17.7 percent of the U.S. total, more than double its share for 1960.

Commercial Cattle Slaughter in Nebraska

Year	Cattle Slaughter (1,000s)	Percent of U.S.
1960	2,137	8.5
1970	4,338	12.4
1980	5,612	16.6
1990	5,882	17.7

In contrast to other major cattle-producing states, Nebraska cattle feeding is spread across a wide variety of feedlot sizes. In 1989 nearly one-fourth (24 percent) of Nebraska's cattle on feed were in lots of less than 1,000 head capacity; lots of this size represented less than 2 percent of cattle feeding in Texas, Kansas, and Colorado. Feedlots of greater than 32,000 head capacity accounted for 8 percent of Nebraska's cattle on feed in

State Economic Scoreboard

Change from same month one year ago
See Review and Outlook for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (April) Constant $	⇩ -3.8%	⇩ -3.4%	⇩ -4.1%
Nonmotor Vehicle Sales (April) Constant $	⇩ -2.0%	⇩ -4.3%	⇧ 0.3%
Building Activity (April) Constant $	⇩ -4.1%	⇩ -15.2%	⇧ -11.8%
Employment (June)	⇧ 2.3%	⇧ 3.2%	⇧ 1.4%
Unemployment Rate* (June)	⇧ 2.3%	⇧ 2.4%	⇧ 2.3%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

1989, as compared with 52 percent in Texas, 32 percent in Kansas, and 48 percent in Colorado. Growth in Nebraska in recent years has been primarily among intermediate size feedlots.

Nebraska Rankings

1st	Fed cattle marketed (5.0 million in 1990)
1st	Cattle on feed (a record high 2.37 million 3/91)
2nd	Cattle and calves inventory (6.0 million 1/91)
2nd	Cattle slaughtered (5.88 million—1990)

Cuming and Dawson Counties continue to maintain their number 1 and 2 rankings, respectively, in cattle feeding in the state, but the configuration of the top ten counties has changed over time. The ten leading cattle-feeding counties in Nebraska in 1990 were Adams, Clay, Colfax, Cuming, Dawson, Hall, Phelps, Saunders, Scotts Bluff, and Wheeler. Seven were located west of U.S. Highway 81. In contrast, in 1960 seven of the ten leading counties were located east of U.S. Highway 81.

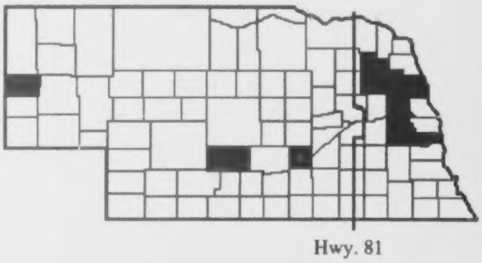
Recent growth in and location of cattle feeding in Nebraska have paralleled the state's growth in and location of irrigated corn production. In 1989 Nebraska produced 847 million bushels of corn for grain and 101 million bushels of grain sorghum. Over 80 percent of the corn was produced on irrigated land. Eight of the ten leading irrigated corn-producing counties are located west of U.S. Highway 81.

The feedlot portion of the cattle industry consumes about a third of the feed grains produced each year in the state. This level of demand has a positive effect on prices received by feed grains producers. Assuming the effect is as little as five cents per bushel, the increase represents $50 million of additional revenue per year to Nebraska's corn and sorghum producers. Thus, cattle serve as an important complementary sector to other components of our agricultural industry.

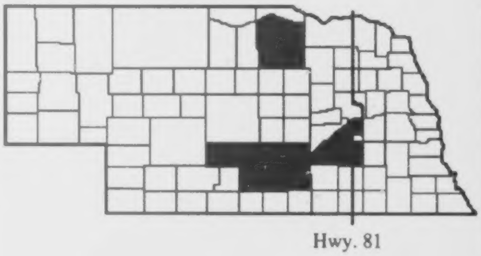
The Cattle Industry Impact

In 1989 Nebraska's cattle industrial complex directly supported an estimated 17,400 jobs. Approximately 2,400 jobs resulted from the production of feed grains for cattle feeding; another 5,000 jobs were associated with cattle production; and the remaining 10,000 jobs were connected directly to the commercial slaughter of cattle from Nebraska's feedlots. The estimated 17,400 jobs represent the direct economic impact of the cattle industrial complex on the state's economy.

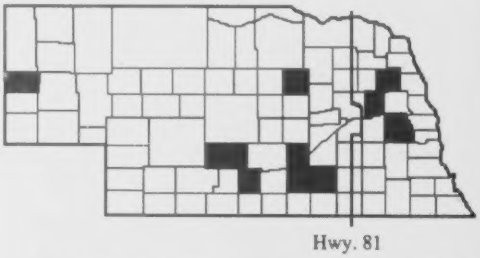
Cattle on Feed
Top Ten Counties for 1960



Top Ten Irrigated Corn
for Grain 1989



Cattle on Feed
Top Ten Counties for 1990



Additional jobs are generated as a result of the various purchases of materials and services by the cattle complex from other businesses in the state plus the personal spending of earned incomes for goods and services. These additional purchases create a multiplier effect—a change in the output/employment of one industry will generate or induce changes in the outputs/employments of many other industries in the economy.

For example, hundreds of employees of Nebraska banks are involved directly in processing loans to finance the production of feed grains and the operation of feedlots and commercial slaughtering plants. Bank employees, in turn, support additional workers in the state as they spend their incomes for food, clothing, housing, insurance, recreation, etc. These latter jobs indirectly exist because of the cattle industrial complex.

Reading the Input-Output Model Results

Table 1 presents the economic impact in terms of gross earnings of the cattle industrial complex on Nebraska's economy in 1989. The term *gross earnings* is defined as the sum of wages and salaries, other labor income, and proprietors' income. The gross earnings figures presented in Table 1 can be explained best by starting with the cattle production column.

The 1989 total of gross earnings from Nebraska's cattle production was $620 million ($620,053,000). Additional earnings occurred as a result of the various interindustry transactions directly and indirectly associated with cattle production operations. Additional earnings are indicated in the cattle production column of Table 1.

For example, the wholesale and retail trade sector earned $267 million ($267,160,000) in 1989 as a result of cattle production operations. An additional $215 million ($215,148,000) was earned by the service sector, etc. Total gross earnings directly and indirectly associated with the state's cattle production in 1989 were nearly $1.5 billion ($1,467,638,000).

The feed grains column of Table 1 presents the estimated 1989 gross earnings resulting directly and indirectly from the production of feed grains consumed by the cattle industry within the state. In 1989, the gross earnings from the direct production of feed grains were $121 million ($120,748,000). Nearly $18 million ($17,940,000) in earnings occurred in the transportation, communication, and utilities sector. Total 1989 gross earnings directly and indirectly associated with feed grains production were $273 million ($273,281,000).

The commercial slaughter column of Table 1 shows that the total 1989 gross earnings directly and indirectly associated with commercial slaughter operations in Nebraska were slightly under $572 million ($571,814,000).

The final column of Table 1 sums gross earnings by sector for the cattle industrial complex. In other words, figures recorded in the fourth column are sums of corresponding figures recorded in the first three columns. Total 1989 gross earnings directly and indirectly associated with Nebraska's cattle industrial complex were estimated to be approximately $2.3 billion ($2,312,733,000).

Table 2 presents the contribution or impact of the cattle industrial complex on the state's economy in terms of estimated jobs. All job figures recorded in Table 2 include both full-time and part-time jobs. Figures presented in Table 2 can be interpreted similarly to those in Table 1. The difference in the two tables simply is the unit of measurement. Table 1 measures impact in terms of gross earnings. Table 2 measures impact on the basis of jobs. The final column of Table 2 shows that in 1989 nearly 107,000 jobs were associated directly and indirectly with Nebraska's cattle industrial complex.

Table 1
Total Direct and Indirect Gross Earnings by Industry of the Nebraska Cattle Industrial Complex
1989
($1,000 of Gross Earnings)

Sector	Feed Grains	Cattle Production	Commercial Slaughter	Total Impact
Cattle feeding	0	620,053	0	620,053
Feed grains	120,748	0	0	120,748
Ag services	5,398	46,836	0	52,234
Mining	837	2,124	677	3,638
Construction	4,031	20,453	5,701	30,185
Manufacturing	35,353	105,707	207,769	348,829
Trade	37,726	267,160	141,320	446,206
T.C.U.*	17,940	92,549	56,620	167,109
F.I.R.E**	16,229	97,398	30,542	144,169
Services	34,982	215,148	129,078	379,208
Other	37	210	107	354
Total	273,281	1,467,638	571,814	2,312,733

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Table 2
Total Direct and Indirect Jobs by Industry of the Nebraska Cattle Industrial Complex
1989

Sector	Feed Grains	Cattle Production	Commercial Slaughter	Total Impact
Livestock	0	5,000	0	5,000
Feed grains	2,400	0	0	2,400
Ag services	412	3,579	0	3,991
Mining	39	98	31	168
Construction	181	919	256	1,356
Manufacturing	1,575	4,709	10,792	17,076
Trade	3,108	22,011	11,643	36,762
T.C.U.*	733	3,781	2,313	6,827
F.I.R.E.**	754	4,527	1,420	6,701
Services	2,430	14,944	8,966	26,340
Other	9	50	25	84
Total	11,641	59,618	35,446	106,705

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

An industry's total multiplier effect on an economy can be measured by a mathematical model called an *input-output model*. The Bureau of Business Research maintains an input-output model of the state's economy for estimating economic impacts. The Bureau's model was used to estimate the total direct and indirect economic impact or contribution of the cattle industrial complex on the state's economy. Economic impacts were measured in terms of gross earnings and employment (jobs). These estimates are summarized below.

In 1989 the cattle industrial complex directly and indirectly contributed approximately $2.3 billion, or about 15 percent, to the state's total gross earnings of $15.44 billion. The cattle industrial complex directly and indirectly supported nearly 107,000 jobs of a total of approximately 730,000 jobs in the private sector. Slightly more than one of seven jobs in Nebraska in 1989 were tied directly and indirectly to the state's cattle industrial complex. Tables 1 and 2 provide details.

Summary

Certain impacts have not been explored or presented in this article. For example, the economic ramifications of Nebraska's range cattle operations have not been included fully in the impact analysis. The analysis focuses on cattle feeding. Nebraska's range cattle industry of over 1.7 million head of feeder cattle per year also has a multiplier effect on the state's economy.

Also absent from the analysis are impact estimates of equipment production and construction activity directly a[illegible]rectly associated with the growth of the cattle industrial complex in the state. No doubt these impacts are substantial. For example, the analysis excludes the economic impacts associated with the manufacture of center pivot irrigation systems in Nebraska that are used in the production of feed grains fed to cattle in the state. Thus, the actual economic impact of the cattle industrial complex on the state's economy is even greater than the impact estimates presented here.

The Need for Lifelong Education in Nebraska

Michael Gebble

BBR Undergraduate Research Associate

Earlier this year President Bush unveiled a plan to reform the educational system in the United States. Summarizing his goals in *America 2000*, he urged the United States to "transform into a nation of students," "strengthen the nation's education effort for yesterday's students, today's workers," and "enhance job training opportunities" (Education Department, 1991). Given demographic patterns, the rate of technological change, and the increase in international competition, President Bush's policy goals appear to be well founded.

This article will focus on two points:

- The cohort of Nebraskans ages 45 to 64 is growing significantly as a percentage of the state's population;
- Future job trends will necessitate the reskilling of many older Nebraskans encountering new technologies or facing midlife occupation changes.

Population Trends

The U.S. Bureau of the Census is the main source of demographic information in the state. The bulk of the Census Bureau's information on historic changes comes from the censuses conducted by the United States at the beginning of each decade. This information, however, is not enough for policy makers. Planners need to have reliable data for predicting future population.

Shortly after the release of the 1980 census, several groups, including Woods & Poole, NPA Data Service, Inc., and the UNL Bureau of Business Research, projected population trends for Nebraska to the year 2010. Without exception, these independent groups understated the extent of the state's outmigration during the 1980s. As a whole, the projections roughly showed a 5.0 percent increase in Nebraska's total population from 1980 to 1990. The results of the 1990 census, however, show that the state's population grew only 0.5 percent.

The presence of an aging baby boom generation and the possible continuation of net outmigration means that Nebraska's future labor supply will be older and may stagnate. In 1990 there were 54,824 fewer persons ages 18 to 24 in the state than in 1980, a decrease of 26 percent. Meanwhile, the number of individuals ages 25 to 44 increased 73,045 or 17.7 percent.

Barring a massive increase in worker participation rates in Nebraska after 1990, changes in Nebraska's traditional workforce will occur as baby boomers spill into the age cohort of 45 to 64 and as the age cohort of 20 to 44 begins to shrink. This process most likely will continue until somewhere around the year 2010. In 2010 the number of Nebraskans ages 25 to 44 roughly will equal the number of Nebraskans ages 45 to 64.

In other words, the proportion of persons in Nebraska ages 45 to 64 will grow significantly. An upward shift in the ages of workers is food for thought in a state that gears much of its educational system toward residents under the age of 25.

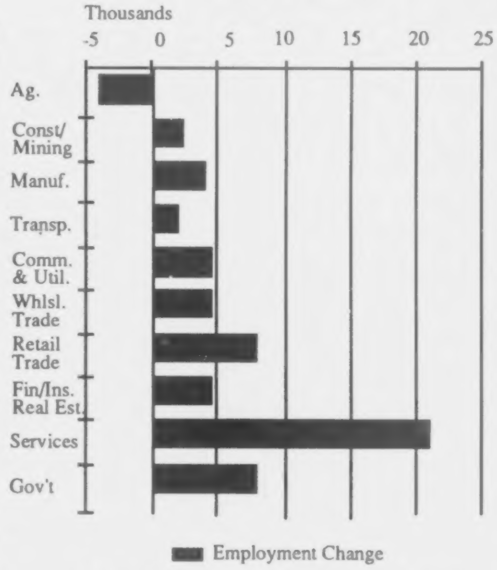
Labor Skills

Accelerated changes in technology, in the workplace, and in the types of jobs available will require new skills from older workers in the future. Microprocessors, advanced communication technology, robotics, and biotechnology are only a few of the changes that will revolutionize the nature of occupations. In addition to technological changes, shifts in available employment will draw more workers into the service sector.

Technological changes and employment shifts at the state level are reflected in 1986 estimates of the Nebraska Department of Labor State Occupational Information Coordinating Committee (SOICC) (Figure 1).

It is difficult to draw precise conclusions from the data, and it may be inappropriate to assume that trends in the late 1980s will continue in a linear fashion to the year 2000. It is not difficult, however, to see the high growth of service jobs in Nebraska relative to other jobs. Trends in Nebraska employment patterns are in line with the rest of the nation. Service jobs dominate both sets of predictions.

Industry Growth 1986-1991
Statewide



(Nebraska Labor Department—SOICC, 1986)

Although there is some variation between the levels of education required now and the predicted levels for the year 2000, the difference is not large. The immediate need for individuals with four or more years of higher education currently is being met; only 17 percent of the jobs in Nebraska require a university degree. In 1987 roughly one in five persons in the U.S. over the age of 25 had a four year degree.

If the job composition continues to change, what skills will workers need? Will future workers need more or less training? Will future jobs require more skills from workers, or will occupations be deskilled by technology?

As international competition intensifies and American companies are faced with slow productivity growth and shrinking profits, the deskilling process may accelerate. In order to cut costs, companies may replace individuals with machines, forcing workers to take jobs involving more menial tasks.

Deskilling scenarios have been dismissed by many analysts lately in favor of scenarios that require upskilling or reskilling. Computers, for instance, free humans from mundane tasks and allow them to perform more complex tasks such as making inferences, judgments, and decisions. Some industries, such as textiles, already require more skills from their workers. In modern textile factories, employees work in teams where every individual is expected to possess a variety of skills, including basic machine maintenance and knowledge of quality control procedures. The training these employees receive enables them to be flexible in an industry with diverse and highly volatile consumer demand.

From an individual perspective, reskilling is needed as technological changes displace workers from their jobs. As persons live longer and the pace of change accelerates, it becomes increasingly difficult for a worker to use the same skills in the same job all of his or her life. Midlife career changes become inevitable for many, even in countries such as Japan, famous for its lifetime employees. In Nebraska—where the workforce is aging and not growing—the need for reskilling is especially pressing for individuals ages 45 to 64.

From a societal perspective, reskilling is needed to avoid a loss of productivity corresponding to a lack of skills in the workforce. It costs society less to keep a workforce able to change than it does to deal with the social problems resulting from an inadequately trained workforce.

Lifelong Education

Without access to adequate lifelong education programs, individuals who need or want to acquire new or improved skills lose not only the knowledge they were taught in school, but they also lose the ability to learn in a classroom environment. Lacking the ability to acquire new skills, workers will have problems adjusting to new technologies.

The aging of the workforce in Nebraska is cause for concern in a state that gears much of its educational system toward individuals under the age of 25. Given the demographic situation in Nebraska, policy makers and business leaders continually should evaluate the mechanisms available for educating and training individuals at all stages of life.

If Nebraska is to lead the way in meeting President Bush's educational goals, then attitudes regarding what traditionally has been considered to be adequate education must be examined. The focus of lifetime education should be improving methods of training and retraining the workforce.

*Future issues of **Business in Nebraska** will examine the issue of workforce skills and training in more detail.*

Does Higher Education Pay?

Lisa Valladao
UNL Bureau of Business Research

The high cost of college tuition may leave many wondering whether it is worth the expense. But the economic value of postsecondary education is relatively high according to a recent report by the Bureau of the Census. There is a considerable gap in earnings power between a high school diploma and a college degree and between college degrees.

The report, entitled *What's it Worth? Educational Background and Economic Status: Spring 1987*, compares high school diplomas with four college degree levels and college degrees in different fields of study.

The average monthly income for college degree holders at all levels was almost double that of individuals with only high school diplomas. Figure 1 shows the ratios of postsecondary degree earnings to high school diploma earnings in 1987.

From 1984 to 1987 the monthly earnings gap between college degrees and high school diplomas widened 20 percent, from $1,231 to $1,477 in constant dollars. Table 1 compares 1984 earnings with 1987 earnings by educational level. This report looks solely at fields of study as opposed to fields of employment—degree holders do not necessarily obtain employment within their particular field of study.

Figure 1
1987 Ratio of Postsecondary Earnings to High School Diploma Earnings

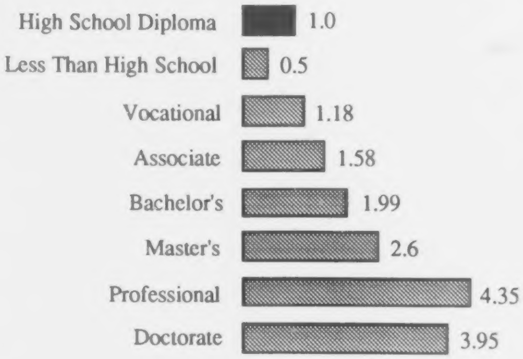


Table 1
Average Monthly Earnings
1984 and 1987

Educational Level	1984*	1987
Doctorate	$2,994	$3,637
Professional	3,749	4,003
Master's	2,132	2,378
Bachelor's	1,679	1,829
Associate	1,294	1,458
Vocational	1,079	1,088
Some college	1,052	1,088
High school diploma	924	921
High school dropout	452	452

*1984 dollars adjusted to 1987 using inflation factor of 1.09 derived from the CPI-Urban

The earnings power of associate, bachelor's and advanced degrees increased from 1984 to 1987. Individuals with no postsecondary degree and vocational degree holders experienced no real increase in monthly earnings from 1984 to 1987.

Although economic status is determined by more than field of study, certain majors do provide advantages in terms of financial rewards. Table 2 presents 1987 average monthly earnings of bachelor's and advanced degrees by field of study.

In 1987 bachelor's degrees in economics, engineering, mathematics, and statistics were at the top of the earnings scale. Home economics, English, journalism, and education were at the bottom. High earnings areas at the advanced degree level were medicine, physical and earth sciences, law, engineering, and business. The liberal arts, education, English, and journalism were at the bottom of the 1987 earnings scale for advanced degrees.

The report also compared earnings of men and women and blacks and whites at each educational level. Table 3 shows average monthly earnings by sex, race, and educational level in 1987.

The data reveal that the gap between the earnings of women and men is substantial. Caution should be exercised in determining the size of the gap. These data do not reflect the possibility that a higher percent of women work part-time and therefore report fewer earnings than do men in any given time period due to fewer hours worked. This possibility, however, does not account for all the earnings gap between men and women.

Most postsecondary degrees held by women in 1987 were in education and technical health (including nursing). Both education and technical health—fields

Table 2
Average Monthly Earnings by Field of Study
1987

Bachelor's Degree	Earnings	Advanced Degree	Earnings
Economics	$2,756	Medicine/Dentistry	$5,607
Engineering	2,670	Physical/Earth Sciences	4,050
Math/Statistics	2,548	Law	3,808
Business/Management	2,330	Engineering	3,369
Agriculture/Forestry	2,154	Business/Management	3,210
Psychology	2,067	Psychology	2,482
Social Sciences	1,674	Social Sciences	2,377
Biology	1,640	Nursing/Technical Health	2,116
Physical/Earth Sciences	1,467	Religion/Theology	1,975
English/Journalism	1,431	Education	1,962
Nursing/Technical Health	1,367	English/Journalism	1,749
Liberal Arts/Humanities	1,346	Liberal Arts/Humanities	1,587
Education	1,181		
Home Economics	1,079		

traditionally dominated by women—were in the bottom half of average monthly earnings at $1,375 and $1,323, respectively. The majority of postsecondary degrees held by men were in business and engineering. These fields were at the higher end of the earnings scale, $2,195 and $2,677 respectively.

The distribution of fields of study for blacks and whites in 1987 was nearly equal. The highest percentages of postsecondary degrees held by both blacks and whites in 1987 were in business and education. Black degree holders earned only 80 percent of what white degree holders earned in 1987. Additionally, there was a substantial gap between the number of degree holders. There were over 36 million white postsecondary degree holders in 1987, while the corresponding number for blacks was just under 3 million. If blacks held postsecondary degrees in proportion to their share of the population, there would have been almost 5.5 million, or 80 percent more, black degree holders in 1987.

Table 3
Average Monthly Earnings*
1987

	Women	Men	Black	White
Professional	$2,311	$4,480		
Master's	1,733	2,901	$2,047	$2,399
Bachelor's	1,136	2,471	1,461	1,861
Associate	1,022	1,977	1,260	1,471
Vocational	773	1,699	689	1,128
H.S. diploma	583	1,350	759	946

*Due to the small number of samples of female doctorate and black doctorate and professional degrees, no data are provided in these categories

Wayne State to Host Rural Development Event

Networking with agencies, resources, and area leaders to strengthen your community will be the focus of the 3rd Annual Cooperative Rural Development Conference. Hosted by Wayne State College, the workshop is scheduled for Friday, October 11, 1991.

Steve Buttress, director of the Nebraska Department of Economic Development , will kick off the morning session, while the luncheon keynote speaker will be Lieutenant Governor Maxine Moul.

Wayne State's Connie Keck says that the conference will examine many aspects of rural development. Sessions will feature:

- Food processing
- K-12 Economic development
- Recycling/solid waste
- International markets
- Entrepreneurship
- Housing
- Marketing your community
- Financing rural development
- Leadership
- Operation Back Home Again
- Dependent care
- Nebraska Technical Assistance Center.

To register, contact Connie Keck, director, Bureau for Community and Economic Development, Wayne State College, Wayne, NE 68723, 402/375-7533.

Review & Outlook

John S. Austin, Research Associate
UNL Bureau of Business Research

National Outlook

The Shoe Has Dropped

At this point, all but the most skeptical economists believe that an economic recovery is underway:

- Second quarter GNP figures showed a slight gain of 0.4 percent. (See box on page 9.)
- In June, the Industrial Production Index increased 0.7 percent, marking the third rise in a row from its low in March.
- Domestic automobile sales were 7.1 million units at annual rates in June and increased to 7.3 million in early July. There was a slight interruption in the upward trend, with a fall to 6.6 million units by mid-July. Nevertheless, automobile sales are well above their lows of late April.
- Housing starts finally climbed over the one-million-unit barrier to 1,040,000 units at annual rates in June. This jump was a 5.2 percent increase above May levels. The figure was well above the January low.
- The unemployment rate reached 7.0 percent in June and dropped to 6.8 percent in July.

The leading indicators have increased for five consecutive months. As we mentioned in a previous issue of *Business in Nebraska*, five months of continuing increases in the leading indicators is the minimum period to feel assured that a recovery will happen. Typically recovery already is underway by the time we are able to observe the necessary increases. This pattern has been the case once again.

Recovery likely started during the second quarter. An official date will be assigned by the National Bureau of Economic Research at some future time. The turnaround in key coincident indicators, most notably the Industrial Production Index, will be a critical determinant in assigning a date to the bottom of the recession. The official date likely will be March.

Fears of a Double-Dip Recession

It almost seems that the public cannot stand too much good news at one time. Thus, attention has focused in recent days on those who foresee a double-dip recession. A double-dip recession is one where a recovery from recession lows begins but is followed shortly by a reverse before the ultimate recovery begins.

The most notable example of a double-dip recession occurred in 1980 and 1981-1982. In 1980 we had a sharp, quick recession in the spring. We recovered in the summer and one year later experienced an enormous downturn throughout the balance of the year and the next year.

The current climate is not at all like that of the early 1980s. In the '80s inflation was high, interest rates were high, and the economy was overheated. The initial recession did not break the overall inflation. The Federal Reserve, feeling alone in fighting inflation, clamped the

Income and Earnings in Nebraska*
($ millions)

	First Quarter 1989	Second Quarter 1989	Third Quarter 1989	Fourth Quarter 1989	First Quarter 1990	Second Quarter 1990	Third Quarter 1990	Fourth Quarter 1990	First Quarter 1991	% Change 1991:I vs. Year Ago
Income										
Total Personal Income	25,201	25,253	24,951	25,682	27,339	27249	26,867	27,508	28,077	2.7
Nonfarm	22,815	23,228	23,615	24,040	24,528	25,002	25,295	25,719	26,080	6.3
Farm	2,387	2,025	1,336	1,641	2,811	2,248	1,572	1,789	1,998	-28.9
Earnings by Industry**										
Ag. Services, Forestry & Fisheries	135	143	150	147	155	153	160	154	156	0.6
Mining	56	54	54	55	55	56	60	66	61	10.9
Construction	912	931	919	930	983	978	991	1,013	1,065	8.3
Manufacturing	2,472	2,472	2,503	2,500	2,575	2,641	2,615	2,657	2,665	3.5
Nondurable	1,218	1,228	1,241	1,238	1,221	1,290	1,270	1,286	1,308	7.1
Durable	1,254	1,244	1,262	1,263	1,354	1,351	1,345	1,371	1,358	0.3
TCU	1,733	1,733	1,723	1,737	1,752	1,787	1,808	1,810	1,806	3.1
Wholesale Trade	1,307	1,327	1,336	1,351	1,429	1,415	1,490	1,473	1,490	4.3
Retail Trade	1,693	1,703	1,734	1,743	1,775	1,781	1,808	1,820	1,838	3.5
FIRE	1,262	1,258	1,255	1,297	1,309	1,349	1,380	1,404	1,440	10.0
Services	3,890	3,956	4,067	4,160	4,251	4,401	4,521	4,724	4,847	14.0
Government	3,185	3,239	3,270	3,360	3,417	3,588	3,536	3,606	3,706	8.5
Federal, Civilian	500	505	510	515	537	572	548	548	578	7.6
Military	420	417	414	411	421	420	418	411	432	2.6
State & Local	2,265	2,317	2,345	2,434	2,459	2,596	2,570	2,647	2,696	9.6

* All data are seasonally adjusted at annual rates
** Earnings is the sum of wages and salaries, other labor income, and income earned by sole proprietors
*** Transportation, Communication, & Utilities
**** Finance, Insurance, & Real Estate
Source: Bureau of Economic Analysis, U.S. Department of Commerce

money supply and induced a second downturn in the economy.

Inflation currently is relatively low, running in the 5 percent versus year-ago area. Interest rates are low, with the federal funds rate at about 5.5 percent. Furthermore, our economy was far from overheated before the recession began and is unlikely to show anything other than moderate growth during the recovery period.

The double-dip talk may have arisen from a misinterpretation of the mixed signals typical during a turnaround in economic performance. Signals on the status of the economy are mixed most of the time, but especially at a economic turning point.

To clear the confusion about mixed signals, it is important that we consider whether the indicators are leading, lagging, or coincident. This issue was discussed in the April 1991 issue of *Business in Nebraska*.

An outstanding example is the current bad news about corporate earnings. A recent Wall Street Journal survey reported a drop of 25 percent versus weak year-ago figures in the second quarter. The worst reports came from the auto industry, with GM, Chrysler, and Ford reporting multimillion dollar losses in the second quarter. But I would argue that these losses are the result of past activity: notably, weak automobile sales at the end of last year and the first half of this year. Furthermore, in the auto industry, labor virtually has become a fixed cost due to contract provisions for income maintenance during layoffs. Therefore, when auto sales are down, profits nose-dive.

There could be a double-dip recession, but a second dip would come from an external source. For example,

The Second Quarter GNP Advance Report

The advance report of an anemic gain in real GNP in the second quarter results from a large negative in the net export sector. All major GNP components showed positive gains except net exports. Here, import growth far outstripped export gains. The accompanying table shows the sources of increase in second quarter real GNP. The increase was distinctly consumer led.

GNP reports are revised frequently. The net export sector likely will be reestimated substantially in future reports. I would speculate that subsequent revisions will be in the positive direction.

Sources of Change in Real GNP (Advance Report)
First Quarter to Second Quarter 1991
(Billions of 1982 Dollars)

	Change in Real GNP	
	$ Billions	Percent
Real GNP	4.3	0.4
Consumption	23.5	3.6
Investment	2.3	NA
Net Exports	-25.7	NA
Exports	5.9	3.7
Imports	31.6	21.2
Government	4.3	2.1

Data all seasonally adjusted at annual rates. NA - not applicable

Table I
Employment in Nebraska

	Revised May 1991	Preliminary June 1991	June % Change vs. Year Ago
Place of Work			
Nonfarm	768,606	773,004	4.7
Manufacturing	101,056	102,115	3.8
Durables	49,504	49,749	1.5
Nondurables	51,352	52,366	6.2
Mining	1,926	1,975	9.7
Construction	32,036	33,973	16.7
TCU*	45,929	46,306	0.6
Trade	192,274	192,738	2.4
Wholesale	52,242	52,288	-3.1
Retail	140,032	140,450	4.5
FIRE**	49,625	50,154	2.9
Services	192,305	193,398	8.1
Government	153,453	152,345	3.6
Place of Residence			
Civilian Labor Force	875,109	874,712	2.7
Unemployment Rate	2.6	2.3	

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table II
Price Indices

	June 1991	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	136.0	4.7	5.1
Commodities	126.7	4.2	4.3
Services	145.8	5.0	5.7
Producer Price Index (1982 = 100)			
Finished Goods	121.9	3.5	3.4
Intermediate Materials	114.3	1.1	1.7
Crude Materials	99.5	-1.7	-0.9
Ag Index of Prices Received (1977 = 100)			
Nebraska	155	-6.1	-4.1
Crops	115	-13.5	-11.6
Livestock	180	-2.7	-0.4
United States	155	2.0	-1.9
Crops	146	12.3	-0.5
Livestock	163	-5.8	-3.2

U* = All urban consumers

Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

Table III
City Business Indicators
April 1991 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	2.8	-4.1
Alliance	0.1	5.3
Beatrice	1.5	14.9
Bellevue	5.2	-13.4
Blair	5.2	-22.4
Broken Bow	2.4	-14.7
Chadron	-3.2	628.1
Columbus	2.5	-33.0
Fairbury	5.2	-83.9
Falls City	1.9	77.1
Fremont	-0.2	-52.9
Grand Island	2.1	37.3
Hastings	1.4	2.6
Holdrege	5.5	-63.8
Kearney	2.7	62.5
Lexington	-0.7	-21.9
Lincoln	2.7	-12.0
McCook	6.6	18.0
Nebraska City	1.2	-37.1
Norfolk	1.7	110.4
North Platte	0.0	94.5
Ogallala	-2.0	-15.0
Omaha	5.2	-17.2
Scottsbluff/Gering	4.5	-61.1
Seward	1.2	-31.0
Sidney	4.9	1061.9
South Sioux City	2.8	-0.7
York	-2.4	40.3

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2) Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

if there were another flare-up in the Middle East with a resulting large military operation, we could see a drop resembling last year's decrease.

Will there be a double-dip recession? I think that it is unlikely at this stage. We most likely will continue on a relatively weak recovery course—perhaps one of the weakest recoveries in post-World War II economic history.

Other Economic News

Both personal income and consumer spending increased 0.5 percent in June. If inflationary effects are removed from the figures, the increases were both 0.4 percent in real terms. May's saving rate was 3.7 percent.

Consumer confidence, as measured by the Conference Board, slipped marginally from 78.0 in June to 77.7 in July. Nevertheless, either figure is well ahead of the low established in February.

There was good news in the prices during June. The Consumer Price Index advanced a mere 0.2 percent, while the Producer Price Index slipped 0.3 percent.

In a somewhat confusing turn of events, retail sales slipped 0.2 percent in June, but stood well above their January lows.

The inventory-sales ratio that many analysts expected would not rise during the recession rose to 1.58 in January, but returned to 1.51 in May. The 1.51 figure means that there is the equivalent of a month and a half of sales in inventory.

Supporting the news in the housing start area, existing home sales increased 1.4 percent in June, marking the fifth gain in a row.

Nebraska Outlook

First quarter 1991 personal income data for the state recently have been released and are presented in the accompanying table. In the first quarter Nebraska's total personal income increased 2.7 percent versus year ago. This figure contrasts to a gain of 4.0 percent for the U.S. as a whole. These gains are distorted by estimated changes in farm income figures.

Farm income in Nebraska dropped 28.9 percent versus a year ago, while U.S. farm income fell 21.0 percent. Nebraska farm income is a much larger percent of state personal income than it is in the U.S. as a whole.

We look at Nebraska's nonfarm income to eliminate the wide swings in farm income. Nebraska nonfarm income increased 6.3 percent versus a year ago but only 4.4 percent for the nation as a whole. As inflation (as measured by the CPI) was approximately 5.3 percent from first quarter 1990 to first quarter 1991, Nebraska showed a real gain in income. The nation fell in real nonfarm income due to the recession.

Strength in the Nebraska personal income figures came from the service sector with an increase of 14.0 percent and from the finance, insurance, and real estate sector with an increase of 10.0 percent.

Nebraska did relatively well compared to other Plains states. There were some distortions in the data because of the timing of agricultural payments (some Plains states received ag payments in the fourth quarter, while others received payments in the first quarter of the year).

Once again we look at nonfarm income to abstract from those distortion problems. From the first quarter 1990 to the first quarter 1991, nonfarm income in the Plains increased 4.8 percent, a figure that contrasts with 4.4 percent for the nation as a whole. Nebraska led all the Plains states with an increase of 6.3 percent, followed closely by an increase of 5.9 percent in South Dakota and 5.4 percent in Minnesota, and 5.2 percent in Iowa and North Dakota. Missouri and Kansas kept the averages down with increases of 3.5 and 4.4 percent, respectively.

Employment figures for June verify the increases we have seen in personal income. Employment was strong, with an increase of 4.7 percent versus year-ago levels (Table I). The strongest sectors were construction at 16.7 percent and services at 8.1 percent.

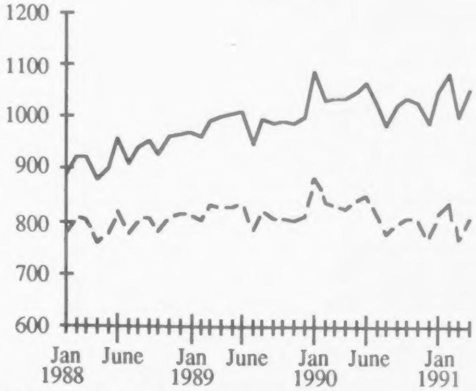
Table IV
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)		City Sales (2) April 1991 (000s)	City Sales (2) % Change vs. Year Ago	Region Sales (2) April 1991 (000s)	Region Sales (2) % Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA		897,697	2.4	1,028,265	2.0	-0.1
1	Omaha	299,374	-0.8	373,354	1.0	-2.1
	Bellevue	12,759	3.1	*	*	*
	Blair	4,652	-7.3	*	*	*
2	Lincoln	116,734	-3.4	136,225	-2.9	-0.7
3	South Sioux City	5,658	-5.4	7,704	-5.6	-6.7
4	Nebraska City	3,461	-5.5	18,215	-0.6	0.6
6	Fremont	18,130	9.0	32,968	8.4	4.3
	West Point	3,401	11.6	*	*	*
7	Falls City	2,339	4.6	9,431	1.7	2.9
8	Seward	4,460	-2.3	14,904	1.7	1.5
9	York	6,444	-2.7	15,457	-2.3	0.0
10	Columbus	15,756	1.8	28,530	-0.1	-0.3
11	Norfolk	19,179	-0.1	35,361	-0.5	0.2
	Wayne	3,202	9.1	*	*	*
12	Grand Island	34,226	1.6	48,729	3.1	-1.6
13	Hastings	16,445	3.8	26,234	3.1	1.3
14	Beatrice	8,481	8.4	18,234	2.2	-1.0
	Fairbury	2,740	-3.4	*	*	*
15	Kearney	19,562	0.5	28,324	-0.3	3.5
16	Lexington	5,559	-5.8	16,300	1.6	1.0
17	Holdrege	5,121	-0.8	8,613	-3.5	1.7
18	North Platte	16,751	5.7	21,507	7.2	6.5
19	Ogallala	5,267	0.6	11,504	-6.8	-7.8
20	McCook	8,241	4.4	11,596	3.4	3.0
21	Sidney	3,650	1.2	7,874	4.5	2.8
	Kimball	1,759	16.4	*	*	*
22	Scottsbluff/Gering	17,798	-2.2	25,919	0.3	2.8
23	Alliance	5,347	-4.4	12,718	-6.1	0.2
	Chadron	2,421	-5.1	*	*	*
24	O'Neill	4,007	-15.9	13,645	-5.3	0.9
	Valentine	2,528	5.0	*	*	*
25	Hartington	1,647	-2.3	8,568	1.6	2.2
26	Broken Bow	3,851	6.3	12,227	0.3	0.1

(1) See region map
(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales
*Within an already designated region

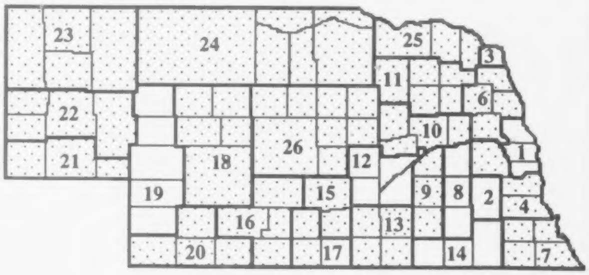
Compiled from data provided by the Nebraska Department of Revenue

Figure I
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) A Nebraska price index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure II
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

Unemployment has remained relatively low. The recession of 1990-1991 has shown extreme regional differences. In May unemployment in Massachusetts was 9.7 percent, while in Michigan it was 9.0 percent. In May Nebraska had the lowest unemployment rate in the nation at 2.6 percent, with Lincoln's 2.6 percent rate the second lowest metropolitan area. Iowa City's rate, the lowest in the nation, was 1.7 percent.

In June unemployment in Nebraska reached 2.3 percent, in contrast to a U.S. unemployment rate of 7.0 percent. Lincoln stood at 2.0 percent, while Omaha was 2.8 percent. Nonmetropolitan Nebraska's unemployment rate matched the state's level.

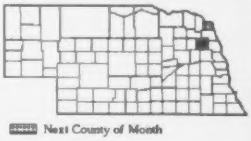
Retail sales improved slightly in April. Net taxable retail sales were 2.0 percent ahead of year-ago levels; however, on a year-to-date basis the first four months of this year are 0.1 percent behind year-ago levels (Table IV). Removing inflation's effects, Nebraska's net taxable retail sales have fallen in real terms from year ago. I strongly suspect that the retail sales figures will be reversed in months to come. Nebraska ought to do well because of the nonspending we experienced in the first part of this year and the gains in personal income. Nebraska's savings rates likely were up; thus, there should be ample funds available for additional consumption.

In agricultural news, subsoil moisture shortages are beginning to be a problem. Subsoil shortages had been isolated in the southeast corner of the state, but shortages now are spreading to east central, northeast, and south central locations. In the report for the week ending July 29, the state as a whole was 58 percent short in subsoil moisture, in contrast to a 46 percent shortage one year ago.

County of the Month

Cuming

West Point—County Seat



License plate prefix number: 24
Size of county: 571 square miles, ranks 62nd in the state
Population: 10,117 in 1990, a change of -13.3 percent from 1980
Median age: 36.8 years in Cuming County, 33.0 years in Nebraska in 1990
Per capita personal income: $14,631 in 1989, ranks 53rd in the state
Net taxable retail sales ($000): $61,476 in 1990, a change of +10.5 percent from 1989; $20,557 during Jan-April 1991, a change of +7.6 percent from the same period one year ago
Number of business and service establishments: 352 in 1988; 58 percent had less than five employees
Unemployment rate: 1.4 percent in Cuming County, 2.1 percent in Nebraska for 1990
Nonfarm employment (1990):

	State	Cuming County
Wage and salary workers	731,108	3,230
	(percent of total)	
Manufacturing	13.5%	23.3%
Construction and Mining	3.8	5.0
TCU	6.3	3.5
Retail Trade	18.4	18.8
Wholesale Trade	7.2	7.4
FIRE	6.6	4.1
Services	24.4	16.9
Government	19.7	21.0
Total	100.0%	100.0%

Agriculture:
Number of farms: 1,185 in 1987, 1,250 in 1982
Average farm size: 303 acres in 1987
Market value of farm products sold: $338.2 million in 1987 ($285,425 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Business in Nebraska

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Association for University Business & Economic Research

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Nebraska's Per Capita Income: How Do We Compare?

Merlin W. Erickson and David D. DeFruiter
UNL Bureau of Business Research

The per capita personal income (PCPI) for Nebraska counties was shown and ranked in the May issue of *Business in Nebraska*. The latest year for which county income data are available is 1989. The average annual percentage changes for the ten year period of 1980-1989 and the one year change during 1988-1989 also were presented in the May article.

This issue compares PCPI of metropolitan and nonmetropolitan populations for Nebraska and surrounding states with the national average. In Chart 1, the total PCPI for Nebraska and the surrounding area is contrasted with the national average. The U.S. is indexed to equal 100 for each year of analysis. The surrounding area is made up of states touching Nebraska's borders.

In 1989 the PCPI of these seven states was less than the national average. Colorado's PCPI has closely approximated the U.S. average over the most recent three years shown. Nebraska's PCPI consistently has been below the U.S. average over the decade, while South Dakota has experienced an even lower PCPI for the ten year period.

Per capita income data are also available for the metropolitan and nonmetropolitan populations of each state; see Table 1. These data also are shown as a ratio to the U.S. metro and nonmetro PCPIs. Nebraska's metro per capita income has been consistently below the PCPI for U.S. metro areas throughout the decade. Further, the PCPI for Nebraska's metro areas is trending downward and away from the U.S. average. This trend holds for nearly all of the surrounding states, especially Wyoming. The one exception to this downward pattern is Missouri, whose experience approximates the U.S. average.

PCPI shows less variation in the nonmetro areas in most of these states. Further, nonmetro PCPI was above the U.S. average throughout the decade except in Missouri and South Dakota. The downward trend in PCPI in Wyoming is reflected in nonmetro areas of the state.

In Nebraska, metro PCPI is higher than nonmetro PCPI. When these income measures are compared with the nation, however, nonmetro is typically higher and metro is generally lower than the corresponding U.S. averages.

Nebraska's total personal income in 1989 was nearly $25.3 billion. This total was split 51 percent and 49

BBR State Economic Scoreboard

Change from same month one year ago
See Review and Outlook for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (May) Constant $	↓ -10.6%	↓ -10.1%	↓ -11.0%
Nonmotor Vehicle Sales (May) Constant $	↑ 0.7%	↓ -1.3%	↑ 2.7%
Building Activity (May) Constant $	↑ 2.8%	↓ -6.4%	↑ 13.9%
Employment (July)	↑ 1.8%	↑ 2.1%	↑ 1.5%
Unemployment Rate* (July)	↑ 2.8%	↑ 2.9%	↑ 2.7%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

percent among metro and nonmetro counties, respectively.

The ten counties with the highest PCPI for 1989 in Nebraska contain no metro counties. Among Nebraska's metro counties, Douglas County typically has the highest PCPI; it ranked 11th overall in 1989 and has ranked between 9th and 13th in nine of the past ten years. Nebraska's other metro counties and their 1989 rankings are Lancaster–21st; Washington–29th; Sarpy–41st; and Dakota–69th.

Chart 1
Per Capita Personal Income
as a Ratio to the U.S.

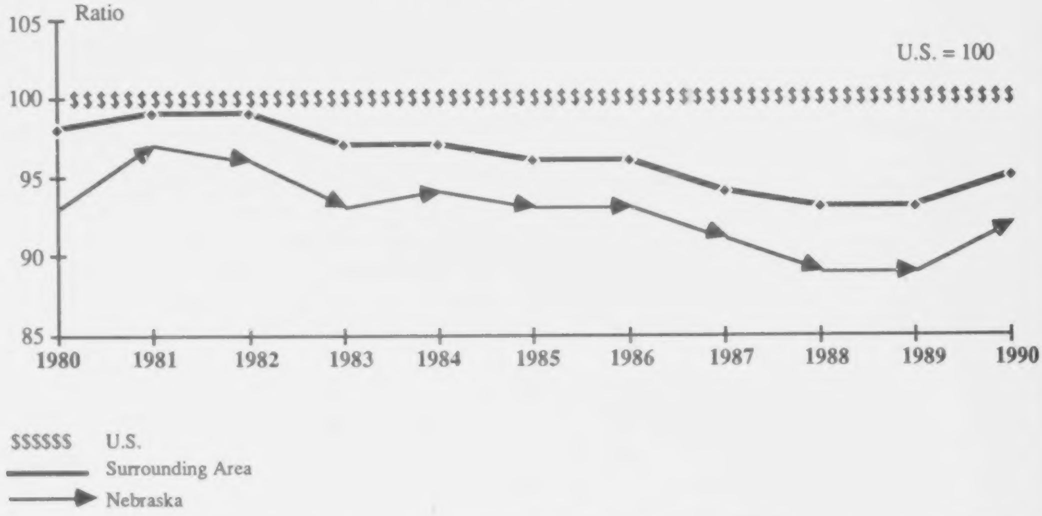


Table 1
Per Capita Personal Income Ratios*

(U.S. = 100)		1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Colorado	Metro	103	105	107	106	105	103	101	99	97	96
	Nonmetro	118	117	118	117	112	111	110	109	108	110
Iowa	Metro	98	98	96	93	91	90	90	89	88	89
	Nonmetro	113	119	112	107	110	111	113	111	108	110
Kansas	Metro	105	105	104	103	101	101	101	99	97	96
	Nonmetro	112	116	119	116	115	117	116	113	112	110
Missouri	Metro	98	98	99	100	100	100	100	99	98	98
	Nonmetro	92	94	93	93	94	95	95	95	94	94
Nebraska	Metro	96	96	96	95	94	93	92	91	89	89
	Nonmetro	108	116	115	110	113	114	113	110	109	109
South Dakota	Metro	92	92	91	89	87	85	85	84	82	82
	Nonmetro	97	99	98	95	97	96	98	99	95	97
Wyoming	Metro	117	117	112	101	97	94	88	85	84	83
	Nonmetro	138	134	128	120	114	114	109	104	105	104
		dollars									
U.S.	Metro	10,534	11,614	12,210	12,901	13,970	14,835	15,570	16,473	17,647	18,771
	Nonmetro	7,929	8,794	9,112	9,485	10,315	10,804	11,345	11,888	12,650	13,557

*Above data are shown as ratios to U.S. metro and nonmetro per capita personal income, respectively

Per capita personal incomes for the ten counties with the highest 1989 incomes ranged from $17,830 in Keya Paha to $32,706 in Wheeler (Table 2). The seven counties having the highest per capita incomes have been ranked in the top ten category five or more years during the 1980-1989 decade. Two counties score a perfect ten, and two counties were in the top ten range for the first time in 1989.

In contrast, at the lower end of the scale, PCPI in 1989 ranged from a low of $9,673 in Thurston County to $12,887 in Dixon County. Again, counties in the bottom ten tend to persist in the lower levels. Seven counties have been ranked in the bottom ten five or more years during the 1980-1989 decade—all of these counties have appeared in this group three or more times.

The underlying components of personal income were examined to determine any common characteristics among the higher income counties or among the lower income areas. In addition to farm income, components included in personal income (TPI) are wages and salaries; proprietors' and other labor income; rent, dividends, and interest income; plus transfer payments. Because the high income and low income counties are largely rural, the importance of farm income was compared for each group.

The ten lowest income counties also have the lowest incidence of farm income. Farm income accounted for less than 20 percent of TPI (ten year average) in all of these counties; four of the counties had an average of less than ten percent over the decade.

In contrast, the ten highest income counties received a larger share of the total from farm income. (Farm income includes government farm payments.) Most of the counties averaged 40 percent or more from farm income—one county averaged over 68 percent. The two counties among the top ten (Fillmore and Phelps) that received the least from farm income also were the most populous of the top ten. The mere presence of a higher proportion of nonfarm residents, in turn, results in a higher share of total income from nonfarm sources.

Table 2
1989 Per Capita Personal Income for Selected Nebraska Counties

1989 Rank	County	1989 Per Capita Income	Times Ranked During Last Decade
	Ten With Highest Income		Top Ten
1	Wheeler	$32,706	8
2	Perkins	23,700	10
3	Dundy	21,196	7
4	Hayes	20,692	5
5	Garden	20,054	10
6	Fillmore	19,081	8
7	Phelps	18,574	7
8	Arthur	18,140	1
9	McPherson	18,082	2
10	Keya Paha	17,830	1
	Ten With Lowest Income		Bottom 10
93	Thurston	$ 9,673	10
92	Knox	11,037	10
91	Hooker	12,190	6
90	Cedar	12,338	10
89	Boyd	12,436	5
88	Antelope	12,502	3
87	Wayne	12,620	5
86	Howard	12,635	3
85	Stanton	12,796	4
84	Dixon	12,887	7

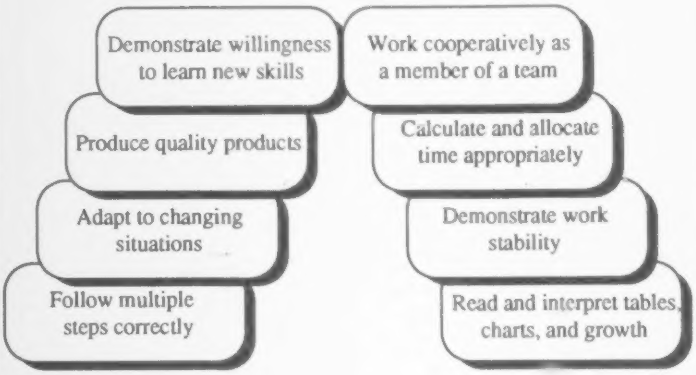
The School-to-Work Transition: Some Strategies for Business Involvement

Lisa Valladao
UNL Bureau of Business Research

The issue of labor force skills, or lack thereof, increasingly has come to the forefront of public attention. Doomsayers continually lament the inability of the U.S. to compete in the global marketplace. They charge that productivity is slowing, quality is lacking, and that we are losing ground to the Japanese and others. Young persons are criticized for lacking the initiative to become well educated. The public school system is lambasted in turn for producing a generation of low quality graduates—individuals who are unable to read, write, calculate, plan, and interact at levels required by the jobs of today and the future.

Labor Secretary Lynn Martin's Commission on Achieving the Necessary Skills (SCANS) reports that the entry of young adults into the workplace has been affected by two phenomena in the last quarter of the twentieth century: market globalization and "the explosive growth of technology." The commission found that the jobs of today and the future increasingly will require workers who can put knowledge into practice. As new developments continue to change the nature of the workplace, education too must change in order to ensure that students not only learn to master the basic skills, but also learn to apply those skills in a real world context.

Figure 1
Selected Competencies for Students in Nebraska Cooperative Vocational Education Programs


Demonstrate willingness to learn new skills
Work cooperatively as a member of a team
Produce quality products
Calculate and allocate time appropriately
Adapt to changing situations
Demonstrate work stability
Follow multiple steps correctly
Read and interpret tables, charts, and growth

Source: Nebraska Department of Education

The Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 seek to implement major changes in the traditional focus of vocational education. One of the major goals of this legislation is to "integrate academic and vocational training by using the context of job-skills training to enhance students' academic skills and to motivate them to excel in both academic and vocational courses." In this framework the potential contribution of vocational education to overall education reform is threefold: vocational education can provide a real world context for abstract and theoretical knowledge; it can offer students the opportunity to use academic knowledge for practical purposes; and it can provide all students, college-bound and noncollege-bound, with a broader range of thinking and work-related skills than currently is offered in the academic setting.

The educational system cannot be reformed in a vacuum. Business, labor unions, government, parents, and others must be involved in structuring curriculum and providing the context in which knowledge can be applied to ensure that the learning process is complete for every student and that our future labor force needs are met adequately.

Efforts are underway at the local, state, and federal level to address these issues. These efforts are designed to meet the needs of employers and to facilitate the entrance of young adults into productive, career-track employment.

Applied Academics

In 1987 the Nebraska Department of Education joined a multistate consortium that focused on restructuring and modifying curriculum to strengthen the links between school and work. In response to the concerns of regional, state, and local businesses, the department focused considerable efforts toward *applied academics*, a term that refers to the integration of subject matter and hands-on workforce applications.

Four specific curricula are available within the general framework of applied academics: principles of technology, applied communications, applied mathematics, and applied biology/chemistry. A fifth curriculum, workplace readiness, is being developed. The curricula are designed to incorporate theoretical principles in physics, English, math, biology, and chemistry into practical applications to strengthen the employability of students.

Cooperative Education

Cooperative education is a training and career exploration partnership between local schools and businesses. Cooperative education is designed to integrate classroom-based learning with relevant work experience. Students enrolled in cooperative education develop a training plan in conjunction with a participating employer that outlines the student's occupational objective and the employer's expectations and defines a set of competencies to be mastered on the job and in the classroom (Figure 1).

Students can benefit from cooperative vocational education through practical work experience and competence, assistance in making career choices, and increased appreciation of the relevance of the academic curriculum. As a result of the Federal Revenue Act of 1978 and federal and state wage and hour regulations, businesses too can derive tangible benefits from cooperative education partnerships. Three major benefits are:

- A federal tax credit for employers of up to 40 percent of first year wages earned by students classified as economically disadvantaged;
- A subminimum wage rate of 75 percent of the established minimum wage for all students employed in the program; and
- Exemptions from restrictions on certain hazardous occupations pertaining to workers under age 18.

Participating businesses also benefit by having access to potentially permanent employees whose skills and work habits are known to them and in working directly with local schools in defining and redefining the competencies necessary for successful employment.

Many employers may not be aware of these benefits and therefore may be reluctant to participate, according to Dick Campbell of the Nebraska Department of Education. As shortages of skilled laborers become more acute, however, employers may find the need to become increasingly more involved in structuring curriculum. Cooperative vocational education can be a viable means of gaining input.

School-to-Apprenticeship System

In presentations to the Youth Apprenticeship, American Style Conference last December, representatives of industry, education, and government called for the U.S. to incorporate some form of European-style apprenticeship into the secondary education system. Such a system would be designed to forge links between secondary education and the workplace, especially for noncollege-bound students. A national apprenticeship system would enable employers to define their skills needs and translate these needs into nationwide competency standards for various occupations. The ultimate benefit could be a more productive workforce armed with high quality, consistent, adaptable skills.

Apprenticeship involves learning a trade while earning a training wage and attending related classes.

Most apprenticeship programs operating in the U.S., including Nebraska, require a high school diploma for entrance (Figure 2). Therefore, apprenticeship programs do not accommodate the substantial population of young adults who, upon finding no relevance in high school curriculum to their own needs and interests, leave school before graduation. Almost inevitably, these dropouts flounder in low-paying, dead-end jobs that provide little or no opportunity for self-sufficiency and advancement. An apprenticeship system offered in the secondary school system may help stem the dropout tide of these high risk students by placing them on tangible career tracks with employers who are committed to providing adequate training.

The German apprenticeship system is cited widely as a model by U.S. policy makers seeking to implement such a program. Important features of the German system include:

- Training for over 400 occupations in several broad categories;
- National competency standards established by employers, unions, and government;
- Government funding of program development and maintenance;
- Shared employer training costs and journeyman's wages;
- Local control of training programs;
- Employer control of apprenticeship openings;
- Early career exploration and opportunities for students.

The German system is coordinated by a federal training board comprised of employers, trade associations, unions, and the government, including public schools. The training board develops competency standards for approximately 400 occupations. The standards define minimum competencies and the timing and organization of the training process. Regional and local chambers oversee the program by matching trainees with firms, monitoring the suitability of local training programs, providing technical assistance, and administering exams.

Figure 2
Characteristics of Current Nebraska Apprenticeship Programs
January 1991

Entrance Requirements:	Most programs require high school diploma
Sponsors:	Individual employers Employer associations Union-employer partnerships
# of Active Programs:	135
# of Participants:	800
Occupations:	45% construction 55% various, including firefighters, police officers

Source: U.S. Department of Labor, Bureau of Apprenticeship & Training

One of the most important aspects of the German system is that career exploration begins as early as seventh grade, and actual training begins around the sophomore year of high school. Students participating in the system spend a portion of the day in the classroom and another portion at the work site, receiving training from individuals who are most familiar with the requirements of the job.

The German system is successful because it offers incentives to employers as well as to students and schools. The strong network of German industry associations facilitates shared training and program development costs. Wages paid to apprentices are a percentage of journeyman's wages, thus alleviating some of the direct training costs.

Many German employers express confidence in the quality of workers emerging from the apprenticeship system and feel that they hold overall competitive advantages over European counterparts who do not offer a similar system. Such advantages derive in part from a larger pool of young workers possessing intermediate and advanced level skills that can be adapted to new technologies.

The system responds to the needs of employers by allowing individual companies to determine the number of apprenticeship openings. Nevertheless, the system has accommodated large numbers of students. Between the mid-1970s and early 1980s, new apprenticeship contracts rose approximately 50 percent despite drops in total employment of about 6 percent.

Approximately 70 percent of German youths enter the labor force through apprenticeship programs. Sixty-eight percent of apprentices work in the occupations for which they were trained within six months of certification. More than half remain with the employer who trained them, many for several years after training.

Implementing a nationwide school-to-apprenticeship system in the U.S. would take a number of years and substantial modification of the German system to accommodate the unique economic, political, and social structures in the United States.

A modified German model may be more easily adopted on a smaller scale, perhaps regionally or at the state level. At the regional level, states with similar labor market characteristics and projected needs could form training consortia composed of businesses, trade associations, school districts, and state labor and education departments. The consortium's main responsibilities would be to define the types of occupations to be certified by the regional school-to-apprenticeship system, establish curriculum and certification standards, determine the necessary length of training programs, seek federal funding for program implementation, and devise a plan for the distribution of funding.

By providing some portion of the funding for a school-to-apprenticeship system, states could see benefits in the form of reduced welfare and unemployment costs. The number of young adults who might otherwise be dependent on these types of assistance would decline in proportion to the effectiveness of the system.

An employer would bear much of the direct training costs and, therefore, would need considerable flexibility in administering training programs, evaluating student progress toward training goals, and in making postcertification hiring decisions. The local school district must be allowed similar flexibility in tailoring the recruitment process and career exploration activities to the unique characteristics of the student population, the number of apprenticeship openings in the district, and the personnel and funding resources available.

Involvement of local businesses would be the vital component of any successful system. For individual businesses and industries in Nebraska to benefit, they would have to be involved at the grassroots level in defining the types of occupations in the state that can be served best by apprenticeship.

Of the occupations in Nebraska that are projected to have favorable employment growth in the coming years, several are excellent candidates for school-to-apprenticeship programs (Table 1).

Table 1
Selected Occupations in Nebraska
With Favorable Employment Growth Prospects

Administrative Assistants
Social Work Case Aides
Precision Equipment Assemblers
Electrical Technicians
Health Aides
Dental Assistants
Carpenters
Construction Inspectors
Drafters
Medical Assistants
Engineering Technologists
Teacher's Aides

Source: Nebraska Department of Labor, Labor Market Information

Recommended Reading

Youth Apprenticeship, American Style: A Strategy for Expanding School and Career Opportunities—Jobs for the Future, 48 Grove Street Somerville, MA 02144

What Work Requires of School: A SCANS Report for America 2000—U.S. Department of Labor

The Forgotten Half: Non-College Youth in America-An Interim Report of the School-to-Work Transition—William T. Grant Foundation Commission on Work, Family and Citizenship

Transition from School to Work: Linking Education and Worksite Training—U.S. General Accounting Office

The benefits available to employers participating in cooperative vocational education partnerships could be incorporated into a state or regional school-to-apprenticeship system. Entrance of students into school-to-apprenticeship positions could be administered within the cooperative vocational education structure. A Nebraska high school student in cooperative vocational education presently can become an apprentice if the occupation is certified by the U.S. Bureau of Apprenticeship and Training and if the employer is willing make a longer-term training and employment commitment to the student. Currently, however, there is no comprehensive statewide program involving employers and schools that facilitates the entrance of high school students into specific apprenticeships.

Conclusion

Vocational education is not the only key to adequately preparing workforce participants. As we saw in last month's issue of *Business in Nebraska*, higher education is valuable to those who obtain degrees. But, on average, less than half of all high school graduates will go to college, and even fewer will leave with a degree. If a well-trained workforce is a desired local, state, and national goal, then vocational education, in the form of apprenticeship or cooperative ventures, must be accepted and encouraged as a viable and respectable educational alternative to traditional college preparation.

For any partnership between education and business to be successful, schools and employers must recognize the value of mutual input. If the links between school and work are not strengthened successfully, then the educational establishment will suffer continued attacks regarding its ability to prepare the workforce of the future. And businesses increasingly will find workers unprepared to meet the challenges of new technologies and expanding marketplaces.

The Nebraska Taxable Retail Sales Price Index

In the April issue of *Business in Nebraska*, the Bureau of Business Research initiated a change in the methodology for calculating real net taxable retail sales for motor vehicle sales and nonmotor vehicle sales in Nebraska. The old methodology used the U.S. Consumer Price Index for all urban consumers (CPI-U).

There are two basic reasons for the development of a new methodology. Many items included in the national CPI-U are exempt from Nebraska's sales tax, making the national CPI-U inappropriate as a price deflator for Nebraska's taxable retail sales. Perhaps the best known exemption is food. While the price of food at home is given considerable weight in the national CPI-U, it is exempt from Nebraska's sales tax. Therefore, food at home should be excluded from Nebraska's taxable retail sales index.

A second reason for developing a new method is based on the way the Nebraska Department of Revenue reports net taxable retail sales. The Department of Revenue reports two series—motor vehicle sales and nonmotor vehicle sales. There was a need to develop a separate index for each series.

The new method is straightforward. The new method eliminates selected retail items from the full list of items used by the U.S. Bureau of Labor Statistics (BLS) in computing the national CPI-U. In other words, we simply deleted items from the BLS list that are exempt from Nebraska's sales tax. Notable exemptions are:

Items	**CPI-U Weight**
Food at Home	10.094
Various Transportation Items	10.141
Shelter	27.657

Our modified list was separated into motor vehicle and nonmotor vehicle items to match Nebraska's two retail sales categories. New weights then were computed based on the reduced list of items. Items retained and their Nebraska weights are presented in the accompanying table.

Nebraska Consumer Price Index Components

Categories	Weights
Motor Vehicle Sales	
New Vehicles	65.552
Used Vehicles	14.879
Maintenance and Repairs	19.569
Total	100.000
Nonmotor Vehicle Sales	
Food Away From Home	17.256
Alcoholic Beverages	4.298
Fuel and Other Utilities	20.748
Household Furnishings and Operation	18.041
Apparel and Upkeep	17.197
Medical Commodities	3.407
Entertainment	12.221
Tobacco Products	4.366
Personal Care Goods and Services	1.795
Schoolbooks and Supplies	0.671
Total	100.000

Our new method for deflating Nebraska retail sales certainly is not perfect. We would prefer an index that uses weights developed from a survey on Nebraska household expenditures. We also would prefer to use local prices. Local price data are not available; we simply do not have information on Nebraska household expenditures to construct Nebraska-based weights. Expensive, regular surveys replicating the BLS efforts would be required to obtain the necessary information.

For more information, contact Merlin W. Erickson.

Miniature Golf Courses, Too

Subsequent to the article on golf courses in the April 1991 issue of *Business in Nebraska*, I received several inquiries about the number of miniature golf courses in the U.S. as well as in Nebraska. According to the Miniature Golf Association of America, there were 1,595 miniature courses in the U.S. and 18 miniature courses in Nebraska at the close of 1990.

Merlin W. Erickson

Recommended Reading

If you are interested in learning more about Nebraska's state tax situation, you may want to look at the recently released *1989 Annual Report of the Nebraska Department of Revenue*. Information is given on taxes received from aviation fuel to lodging. State taxes by county also are available. The four major sections of the report cover income taxes, sales taxes, miscellaneous taxes, and property taxes. Each section opens with a brief background. No matter where you stand on various tax issues, you will find the facts available in this compendium valuable. The report can be purchased from the Department of Revenue for $7.00. The 1990 issue will be available in January.

Review and Outlook

John S. Austin
UNL Bureau of Business Research

National Outlook

The Economy's Staggering Recovery

The economy continues to expand, but at a slow pace. Evidence is mounting that the recession ended with a flat finish. Meanwhile, we are barraged with conflicting data about the current state of the economy. Each new economic news release is accompanied by a quote from a different soothsayer that the recent evidence confirms that the economy (a) "Continues to slide," (b) "Advances strongly," or (c) "Stays the same." Some of the more important reports are:

- Unemployment dropped 0.2 percentage points in July to 6.8 percent; however, payroll employment dropped 51,000;
- New car sales advanced marginally to 6.8 million units at annual rates in July, but are 8.2 percent behind year-ago levels. Mid-August sales are disappointing;
- Industrial production advanced 0.5 percent in July, continuing an upward track from its March low, but still is 2.5 percent below year-ago levels;
- Retail sales advanced 0.5 percent in July. Personal income fell 0.1 percent. Personal spending continues to rise;
- Housing starts advanced 3.7 percent in July and now stand at 1.07 million units at annual rates. New house sales fell 8.5 percent;
- Durable goods orders skyrocketed 10.7 percent in July, the biggest rise in the series since December 1970. A large part of the increase was due to aircraft orders; and
- Second quarter real GNP figures were revised to a loss of 0.1 percent. (See page 11 for more information on GNP releases and revisions.)

Table I
Employment In Nebraska

	Revised June 1991	Preliminary July 1991	Revised % Change vs. Year Ago
Place of Work			
Nonfarm	772,786	763,388	4.9
Manufacturing	101,902	100,918	3.5
Durables	49,732	49,179	2.0
Nondurables	52,170	51,739	5.1
Mining	1,978	2,038	8.3
Construction	34,058	34,890	18.1
TCU*	46,264	46,040	1.1
Trade	193,116	193,620	2.8
Wholesale	52,300	52,370	-3.2
Retail	140,816	141,250	5.2
FIRE**	50,105	50,295	3.2
Services	193,318	192,505	7.9
Government	152,045	143,081	4.1
Place of Residence			
Civilian Labor Force	874,662	877,301	2.3
Unemployment Rate	2.3	2.8	

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table II
Price Indices

	July 1991	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	136.2	4.4	5.0
Commodities	126.2	3.8	4.2
Services	146.8	4.9	5.6
Producer Price Index (1982 = 100)			
Finished Goods	121.6	2.9	3.4
Intermediate Materials	114.0	0.8	1.6
Crude Materials	99.4	-2.0	-1.1
Ag Index of Prices Received (1977 = 100)			
Nebraska	151	-7.4	-4.5
Crops	110	-14.7	-12.1
Livestock	177	-4.3	-0.9
United States	151	-0.7	-1.7
Crops	137	5.4	0.3
Livestock	163	-5.8	-3.6

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

Some confusion arises because data are quoted either in changes from last month or changes from a year ago. The end of a recession means that the economy no longer is deteriorating. But it takes time to return to where we started. (See article on the downturn cycle in the June 1991 *Business in Nebraska*.)

So where are we? We are recovering, but not all sectors are recovering at once. Nor are all regions recovering simultaneously. If you are still unemployed, you are still in a personal recession.

The Soviet Countercoup

The attempted Soviet coup was quelled quickly. The Soviet structure is unraveling at this time, however, as many of the republics are declaring independence. Where this will lead in the long run is questionable, but we will speculate on its meaning for our economy.

In the short run, we see continuing chaos. There likely will be a large increase in the need for food aid. The bulk of this aid initially may take the form of giveaways on the part of governments. Some sales may accompany the giveaways. Whatever new system emerges likely will not be tuned for internal distribution of food produced. The same comment may be relevant to energy and product distribution and production as well. The short run promises to be a difficult phase.

In the long run, the restructuring of the Soviet group implies an opening of markets. We likely will continue to supply raw foodstuffs and food products to the

Soviets for some time. But an open market without money means little. There is a shortage of hard currency that is vital for trade.

The Fed's Gradualism Continues

About a month ago the Federal Reserve lowered its key interest rate, the federal funds rate, another quarter of a percent. This move was confusing, as the economy was already in a recovery phase. The June data, however, had looked somewhat weak. In particular, the Fed likely focused on the employment situation.

In May employment gained 151,000 jobs, the first increase in over a year. During the year, the fall in employment averaged 220,000 jobs per month. In June and July, the May increase was reversed, bringing the total loss to 72,000 jobs over the two months. It is likely the loss in jobs keyed the Fed's action.

The Fed's dropping of interest rates, in retrospect, may have been an overreaction to the employment drops. But the size of the change was small, a quarter of a percent on the federal funds rate. Even if the Federal Reserve was dead wrong in the direction of change in interest rates, the size of its actions will not hurt the economy. The Fed's actions can be readily accommodated by the markets.

It is heartening that the Federal Reserve has been able to restrain the size of its actions in the past couple of years. Gradualism works.

Other Economic News

The Producer Price Index dropped 0.2 percent in July; however, the Consumer Price Index advanced 0.2 percent in July. Both these price reports indicate that inflation is not a major concern.

Consumer confidence in August dropped marginally to 76.3 according to the Conference Board. The index had been 77.7 in July and 78.0 in June.

These small slides continue a trend since the major advance in consumer confidence in the early spring. These changes should not upset us, as it takes large changes in consumer confidence to affect purchasing behavior.

Nebraska Outlook

Nebraska continues to lead the nation in low unemployment rates. In June Nebraska had the lowest unemployment rate in the nation at 2.3 percent.

The next lowest states were Hawaii and South Dakota, both at 3.1 percent. Nebraska and Hawaii have been exchanging the lowest position since July 1989.

Lincoln's unemployment rate in June was the second lowest in the nation at 2.0 percent. Iowa City led with a rate of 1.7 percent.

The Plains states are experiencing low unemployment rates. All Plains states except Missouri had a rate below 5.0 percent in June. Missouri's rate was 7.0 percent.

The only other state with a rate below 5.0 percent was Hawaii. The recession has had little effect upon the Plains states.

Table III
City Business Indicators
May 1991 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	2.8	2.8
Alliance	-0.8	-22.2
Beatrice	1.1	-34.2
Bellevue	5.5	19.2
Blair	5.5	-36.3
Broken Bow	1.8	-59.8
Chadron	-3.0	291.1
Columbus	2.0	-32.8
Fairbury	5.4	-86.9
Falls City	1.4	94.8
Fremont	-0.2	-49.0
Grand Island	2.0	43.1
Hastings	0.7	89.6
Holdrege	5.0	-88.4
Kearney	2.2	90.7
Lexington	-1.7	-14.4
Lincoln	2.7	-11.8
McCook	5.7	25.1
Nebraska City	0.6	-36.7
Norfolk	2.0	92.3
North Platte	-0.5	22.9
Ogallala	-2.4	-16.2
Omaha	5.5	-4.6
Scottsbluff/Gering	4.5	-34.2
Seward	0.4	128.9
Sidney	3.7	786.0
South Sioux City	2.4	24.3
York	-2.8	21.1

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2) Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

In July, Nebraska's unemployment rate increased to 2.8 percent. Lincoln's unemployment rate increased to 2.4 percent.

Nebraska's low unemployment rate is related to the rate of job growth experienced in the past two years. Nebraska's job growth continues its staggering advance in July. The number of jobs increased 4.9 percent above year-ago levels.

May's net taxable nonmotor vehicle retail sales showed a substantial gain over year-ago figures, increasing 5.4 percent. Auto sales did not keep pace; thus, the overall net taxable retail sales increased only 3.5 percent.

On a year-to-date basis, total sales showed a slight increase of 0.7 percent versus a year ago. With inflation running close to 5.0 percent, we are still well behind year-ago figures in constant dollar terms.

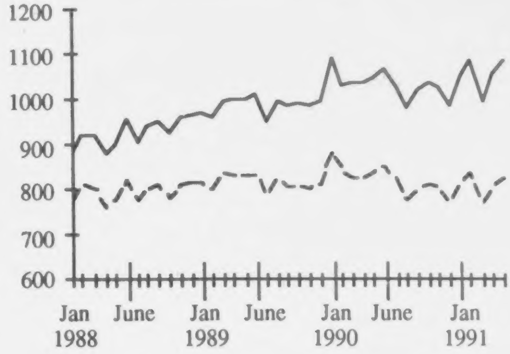
Table IV
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)		City Sales (2) May 1991 (000s)	City Sales (2) % Change vs. Year Ago	Region Sales (2) May 1991 (000s)	Region Sales (2) % Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA		938,164	5.4	1,074,455	3.5	0.7
1	Omaha	318,619	5.8	398,009	4.1	-0.8
	Bellevue	12,901	5.5	*	*	*
	Blair	4,873	-0.6	*	*	*
2	Lincoln	120,050	-2.8	139,821	-3.9	-1.4
3	South Sioux City	6,050	-14.0	8,093	-11.6	-7.8
4	Nebraska City	3,993	1.4	20,249	6.8	1.9
6	Fremont	18,112	8.2	32,332	4.3	4.3
	West Point	3,701	-1.8	*	*	*
7	Falls City	2,446	2.1	9,594	0.5	2.3
8	Seward	4,451	-4.7	15,310	-3.1	-1.8
9	York	7,507	2.7	16,298	-2.6	-0.6
10	Columbus	16,027	0.6	28,241	-0.4	-0.3
11	Norfolk	21,043	4.2	36,892	0.9	0.3
	Wayne	3,320	8.2	*	*	*
12	Grand Island	33,157	1.4	47,859	0.8	-1.1
13	Hastings	16,428	5.6	26,499	4.3	1.9
14	Beatrice	9,209	9.3	19,623	0.4	-0.7
	Fairbury	2,909	-4.9	*	*	*
15	Kearney	21,266	2.1	30,336	2.6	3.3
16	Lexington	6,323	2.9	17,371	0.8	1.0
17	Holdrege	5,127	5.9	8,962	2.5	1.9
18	North Platte	17,178	8.5	21,705	7.0	6.6
19	Ogallala	5,829	-3.5	12,483	-3.0	-6.7
20	McCook	9,014	1.7	12,166	-6.1	0.8
21	Sidney	4,256	5.2	8,635	6.7	3.6
	Kimball	2,110	21.2	*	*	*
22	Scottsbluff/Gering	19,732	2.6	26,729	-1.1	2.0
23	Alliance	5,593	0.6	14,640	2.9	0.8
	Chadron	2,858	4.6	*	*	*
24	O'Neill	4,353	-12.9	15,150	-3.8	-0.2
	Valentine	3,112	13.9	*	*	*
25	Hartington	1,617	-3.6	9,110	5.2	2.9
26	Broken Bow	3,768	3.4	12,872	3.8	0.9

(1) See region map
(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales
*Within an already designated region

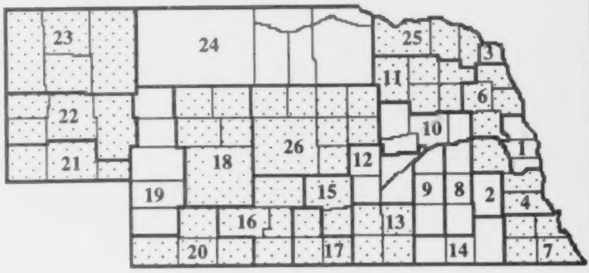
Compiled from data provided by the Nebraska Department of Revenue

Figure I
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) A Nebraska price index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure II
Region Sales Pattern
YTD as Percent Change From Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

The GNP Revision Process

The public likely is confused by the continuum of conflicting reports on latest quarter GNP. This note briefly describes the GNP revision process.

GNP reports are available in the closing days of the month following the preceding quarter. There are three reports for the previous quarter. The successive reports are based on more comprehensive data. The early reports rely extensively on estimates.

The first report is called the *advance report* and is made at the end of the month following the close of the quarter. Thus, at the end of July we received our first report on the second quarter's (April, May, and June) real GNP. The advance report showed an increase of 0.4 percent.

One month later a *preliminary report* is made. At the end of August we were told that second quarter GNP fell 0.1 percent. One month later there will be a final report on the second quarter. This procedure is followed every quarter.

The final report is revised again each July. These revisions are a sore point for many of us who would like the final estimates left untouched.

The official reason for the annual revisions is that seasonal factors are reestimated periodically. There also are changes in methodology. Thus, the newly revised series contains the latest methodology for all the years in a series.

The successive July revisions are called *latest estimates*. The size of the revisions are substantial, as shown in the accompanying table.

A small change in GNP in the advance report, such as this year's second quarter gain of 0.4 percent, subsequently can be revised significantly, especially in the July revisions. A small figure can change from a small positive to a large positive or to a substantial negative.

The moral of the story is not to believe the exact numbers given in the GNP reports. These figures will change in subsequent revisions. Use the GNP data as a rough guide to where we are.

Average Percentage Revision for Real GNP

Advance to Final	0.7
Preliminary to Final	0.4
Advance to Latest	1.8
Preliminary to Latest	1.7
Final to Latest	1.8

Note: Changes can be in either direction

John S. Austin

Available soon from the Bureau of Business Research

The 1992 Annual Economic Outlook Report for Nebraska

This publication is a must-have for everyone interested in the Nebraska economy. You will find a wealth of information in this volume that will help your business steer a course for the 1990s and beyond.

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Mark Your Calendars

- **December 11**
  Nebraska: Development in the 1990s

The Bureau of Business Research and the Nebraska Chamber of Commerce and Industry will combine forces to present an economic outlook conference entitled "Nebraska: Development in the 1990s." The program will begin at 8:00 a.m. at the Nebraska Center for Continuing Education on the UNL East Campus and conclude with a luncheon speaker.

- **October 11**
  3rd Annual Cooperative Rural Development Conference

Networking with agencies, resources, and area leaders to strengthen your community will be the focus of the 3rd Annual Cooperative Rural Development Conference, hosted by Wayne State College.

Steve Buttress, Director of the Nebraska Department of Economic Development, will kick off the morning session, while the luncheon keynote speaker will be Lieutenant Governor Maxine Moul.

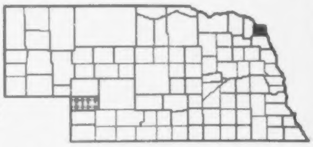
Wayne State's Connie Keck says that the conference will examine many aspects of rural development, including food processing; K-12 economic development; recycling/solid waste; international markets; entrepreneurship; housing; marketing your community; financing rural development; leadership; Operation Back Home Again; dependent care; Nebraska Technical Assistance Center.

To register, contact Keck at the Bureau for Community and Economic Development, Wayne State College, Wayne, NE 68723, 402/375-7533.

County of the Month

Dakota

Dakota City—County Seat



License plate prefix number: 70

Size of county: 265 square miles, ranks 92nd in the state

Population: 16,742 in 1990, a change of +1.0 percent from 1980

Median age: 31.2 years in Dakota County, 33.0 years in Nebraska in 1990

Per capita personal income: $13,880 in 1989, ranks 69th in the state

Net taxable retail sales ($000): $99,775 in 1990, a change of +19.0 percent from 1989; $36,751 during January-May 1991, a change of -7.8 percent from the same period one year ago

Number of business and service establishments: 393 in 1989; 57.5 percent had less than five employees

Unemployment rate: 2.4 percent in Dakota County, 2.1 percent in Nebraska for 1990

Nonfarm employment (1990):

	State	Dakota County
Wage and salary workers	731,108	11,835
	(percent of total)	
Manufacturing	13.5%	59.1%
Construction and Mining	3.8	4.0
TCU	6.3	2.0
Retail Trade	18.4	12.7
Wholesale Trade	7.2	3.0
FIRE	6.6	4.1
Services	24.4	8.2
Government	19.7	6.9
Total	100.0%	100.0%

Agriculture:

Number of farms: 345 in 1987, 378 in 1982

Average farm size: 436 acres in 1987

Market value of farm products sold: $23.1 million in 1987 ($67,108 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Business in Nebraska

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Association for University Business & Economic Research

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